

MONTECITO RANCH

APPENDIX B

TRAFFIC IMPACT ANALYSIS (VOLUME 1 OF 3 - TRAFFIC IMPACT ANALYSIS REPORT)

for the

DRAFT ENVIRONMENTAL IMPACT REPORT

SP01-001; TM 5250RPL⁶; P04-045;

LOG NO. 01-09-013; SCH NO. 2002021132

MAY 2008

Information for the Reader

This technical report analyzes traffic-related elements associated with construction and operation of the Montecito Ranch Project. The reader should note that refinement of the location of a Circulation Element roadway (SA 330) between Montecito Road and SR 67 is included as a Circulation Element change in the project description provided in the Montecito Ranch Project Environmental Impact Report (EIR).

Because construction of this segment of the roadway is not anticipated as this time (buildout of the roadway segment will be completed by another entity in the future), and does not comprise part of the Montecito Ranch Project, this report does not contain analysis regarding the segment of SA 330 south of Montecito Road. For readers interested in potential effects associated with the relocated road segment, please refer to Subchapter 2.1, Transportation/Circulation, and Section 5.8.6, Extension of SA 330 Design Scenario Alternative, of the EIR. The potential traffic effects associated with a realigned SA 330 segment are described in both sections, and potential mitigation is specified in Section 5.8.6 (should the realignment as described under the alternative be implemented). When construction is contemplated, impacts and mitigation will be confirmed and implemented by others.

TRAFFIC IMPACT ANALYSIS
for
MONTECITO RANCH (TM 5250)

Prepared for
THE COUNTY OF SAN DIEGO
AND
MONTECITO RANCH, LLC

April 24, 2008

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EXECUTIVE SUMMARY

Urban Systems Associates, Inc. was retained to evaluate traffic impacts from the Montecito Ranch (TM 5250) project. The proposed Montecito Ranch project includes 417 single-family residential homes. The project also will provide an 8.3 acre neighborhood park and sites for future development of a 600-student charter high school and an 11.9-acre historical park site. Although not currently proposed for development, school impacts also are evaluated as part of this study. The project is expected to generate 5,885 average daily vehicle trips, with 569 occurring in the AM peak hour and 587 occurring in the PM peak hour.

Based on an evaluation of Existing, Existing plus Project, Existing plus Approved Projects (Near Term), Existing plus Approved Projects plus Project (Near Term plus Project) and Year 2030 Conditions With and Without the Project, the following conclusions were reached:

- Street segments rarely limit traffic flow along a corridor like SR-67 and SR-78. Intersections where there is conflicting cross traffic are usually the cause of delay. Because of this fact, proposed project mitigation focuses on intersection improvements. The Highway Capacity Manual (2000) also recognizes this fact and, therefore, provides corridor evaluation procedures which are based on intersection control delays.



FIGURE ES-1

- **Table ES-1** shows a summary of intersection direct impacts and recommended mitigation. The table also indicates whether impacts are fully mitigated and whether a statement of overriding considerations is required.
- **Table ES-2** shows a summary of roadway segment direct impacts, and recommended mitigation. The table also indicates whether impacts are fully mitigated and whether a statement of overriding considerations is required.
- **Table ES-3** shows a summary of intersection cumulative impacts, and recommended mitigation. The table also indicates whether impacts are fully mitigated and whether a statement of overriding considerations is required.
- **Table ES-4** shows a summary of roadway segment cumulative impacts, and recommended mitigation. The table also indicates whether impacts are fully mitigated and whether a statement of overriding considerations is required.
- **Table ES-5** summarizes the “after mitigation” levels of service which may be expected at intersections mitigated by the Montecito Ranch project. **Figures ES-2 through ES-6** show mitigation which is proposed for each significantly impacted intersection. Please note that **Appendix M** includes full D sheet size (24" x 36") prints for the intersection mitigation. For more details regarding the improvements, transitions and related information please refer to these larger scale drawings.

TABLE ES-1

Summary of Significant Direct Intersection Impacts and Mitigation

Location	Intersection	Significant Direct Impact?(1)	Mitigation	Impact Fully Mitigated?	Override Required?
1.	Ash St. / Pine St. (SR-78)	Yes	Southbound right turn lane to westbound (as a community improvement; not required as mitigation); signalize and add eastbound right turn lane*	Yes	No
2.	Pine St (SR-78) / Olive St.	Yes	Signalize existing intersection (by Caltrans)*	Yes**	No
3.	Pine St. (SR-78) / Main St. (SR-67)	Yes	Widen and re-stripe north leg to add a right turn lane & modify signal*	Yes	No
4.	Main St.(SR-67) / Montecito Rd.	Yes	Optimize signal timing and re-stripe to add southbound to westbound right turn lane*	Yes	No
5.	Montecito Rd. / Montecito Wy.	No	N/A	N/A	N/A
6.	Main St. (SR-67) / Highland Valley Rd. / Dye Rd.	Yes	Construct Northbound dual left turn lanes	Yes	Yes
7.	Main St. (SR-67) / Archie Moore Rd.	Yes	Signalize existing intersection*	Yes	No

Notes:

(1) From Table 12-4

* Proposed mitigation would mitigate both direct and cumulative impacts.

** Based upon Board Policy J-34, where mitigation is assumed by others, if the recommended mitigation is not in place at the time project impacts occur, the project will provide the mitigation subject to reimbursement, except for the project's fair share contribution.

Note: All State Highway improvement plans and improvements will need to be approved by both the County and Caltrans.

TABLE ES-2

Summary of Roadway Significant Direct Segment Impacts and Mitigation

Road	Segment	Significant Direct Impact? (1)	Mitigation	Impact Fully Mitigated?	Override Required?
1. Pine Street (SR-78/10th Street)	Haverford Road to H Street	Yes	Widen to 4 Lane Major	No**	Yes
2. Montecito Way	Montecito Ranch Road to Montecito Road	Yes	Widen to Rural Light Collector*	Yes	No
3. Ash Street	Montecito Ranch Road to Pine Street (SR-78)	Yes	Widen to Rural Light Collector*	Yes	No
4. Montecito Road	Montecito Way to Main Street (SR-67)	Yes	Widen to a Rural Light Collector*	Yes	No
5. Main Street (SR-67)	Hunter Street to Poway Road	Yes	Widen to 4 Lane Major	No**	Yes

Notes:

(1) From Table 12-1

* Proposed mitigation would mitigate both direct and cumulative impacts.

** Road segment widening is not being proposed. The intersection improvements for SR-78/Ash Street, SR-78 / Olive Street, SR-78 / Main Street will partially mitigate segment impacts. A statement of overriding considerations will be required for Pine Street and Main Street.

TABLE ES-3

Summary of Intersection Cumulative Impacts and Mitigation

Location	Intersection	Significant Cumulative Impacts? (1)	Mitigation	Impact Fully Mitigated?	Override Required?
1.	Ash St. / Pine St. (SR-78)	Yes	Southbound right turn lane to westbound (as a community improvement; not required as mitigation); signalize and add eastbound right turn lane*	Yes	No
2.	Pine St (SR-78). / Olive St.	Yes	Signalize existing intersection (by Caltrans)*	Yes**	No
3.	Pine St. (SR-78) / Main St. (SR-67)	Yes	Widen and restripe north leg to add a right turn lane; modify signal*	Yes	No
4.	Main St.(SR-67) / Montecito Rd.	Yes	Optimize signal timing and re-stripe to add southbound to westbound right turn lane*	Yes	No
5.	Montecito Rd. / Montecito Wy.	No	N/A	N/A	N/A
6.	Main St. (SR-67) / Highland Valley Rd. / Dye Rd.	Yes	Construct Northbound dual left turn lanes or fair share contribution to TIF project A-09	Yes	No
7.	Main St. (SR-67) / Archie Moore Rd.	Yes	Construct traffic signal*	Yes	No

Notes:

(1) From Table 12-6

* Proposed mitigation would mitigate both direct and cumulative impacts.

** Based upon Board Policy J-34, where mitigation is assumed by others, if the recommended mitigation is not in place at the time project impacts occur, the project will provide the mitigation subject to reimbursement except for the project's fair share contribution.

Note: All State Highway improvement plans and improvements will need to be approved by both the County and Caltrans.

TABLE ES-4

Summary of Roadway Significant Cumulative Segment Impacts and Mitigation

Road	Segment	Significant Cumulative Impact? (1)	Mitigation	Impact Fully Mitigated?	Override Required?
1. Pine Street (SR-78/10th Street)	Haverford Road to H Street	Yes	Amend TIF to include widening.** Fair share contribution to TIF; widen to 4 Lane Major	Yes*	No
2. Montecito Way	Montecito Ranch Road to Montecito Road	Yes	Widen to Rural Light Collector *	Yes	No
3. Ash Street	Montecito Ranch Road to Pine Street (SR-78)	Yes	Widen to Rural Light Collector *	Yes	No
4. Montecito Road	Montecito Way to Main Street (SR-67)	Yes	Widen to Rural Light Collector *	Yes	No
5. Main Street (SR-67)	10 th Street to Poway Road	Yes	Fair share contribution to TIF; widen to 4 Lane Major	No***	Yes

Notes:

(1) From Table 12-3

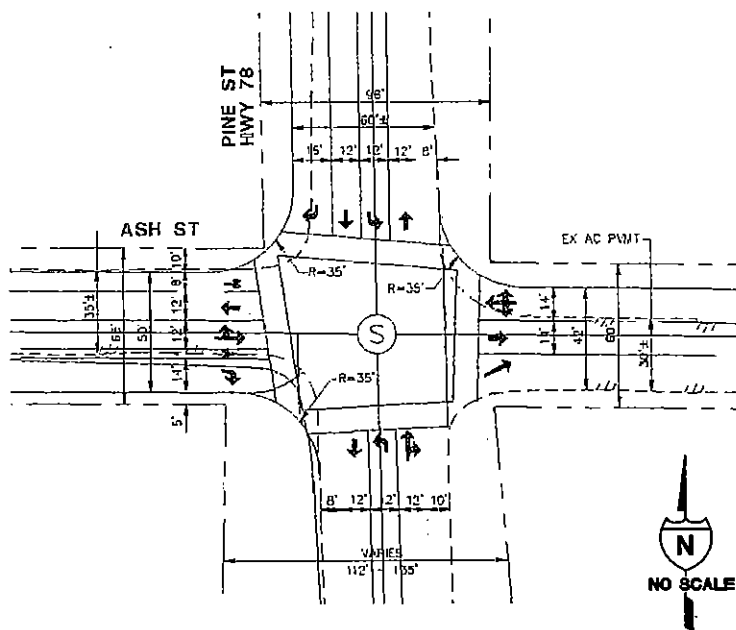
- * Road segment widening is not being proposed. The intersection improvements for SR-78/Ash Street, SR-78/Olive Street, SR-78/Main Street will partially mitigate segment impacts. A statement of overriding considerations will be required for Pine Street and Main Street.
- ** If TIF is not amended then a statement of overriding considerations will be required.
- *** A project contribution to the TIF will mitigate impacts to SR-67 within in the Ramona boundary. From the Ramona boundary to Poway Road, a statement of overriding considerations will be required.
- Proposed mitigation would mitigate both direct and cumulative impacts.

TABLE ES-5
Existing + Project Intersection Levels of Service
(With Project Mitigation)

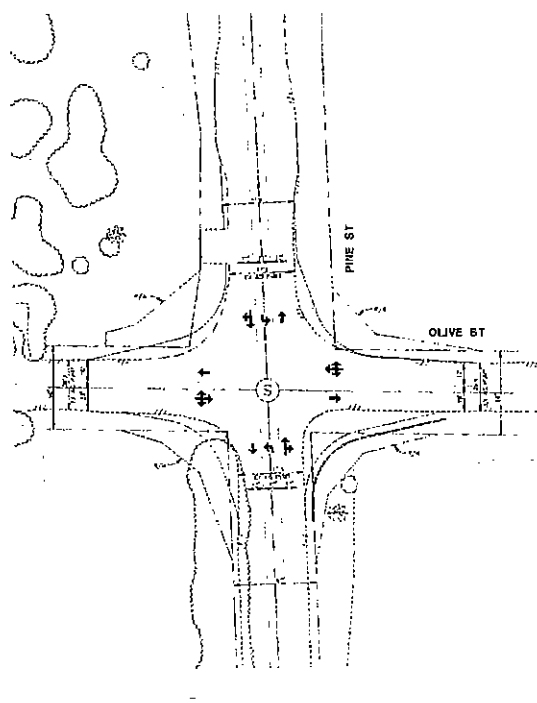
Number	Intersection	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1	Ash Street at Pine Street (SR-78)	24.7	C	32.5	C
2	Pine Street (SR-78) at Olive Street	9.6	A	11.2	B
3	Pine Street (SR-78) at Main Street (SR-67)	40.7	D	49.6	D
4	Main Street (SR-67) at Montecito Road	31.1	C	38.3	D
5	Montecito Way at Montecito Road	10.4	B	10.3	B
6	SR-67 at Highland Valley Road / Dye Road	33.5	C	20.9	C
7	SR-67 at Archie Moore Road	5.5	A	10.7	B

Notes:

LOS = Level of Service



Intersection 1* - Ash Street at Pine Street (SR-78)

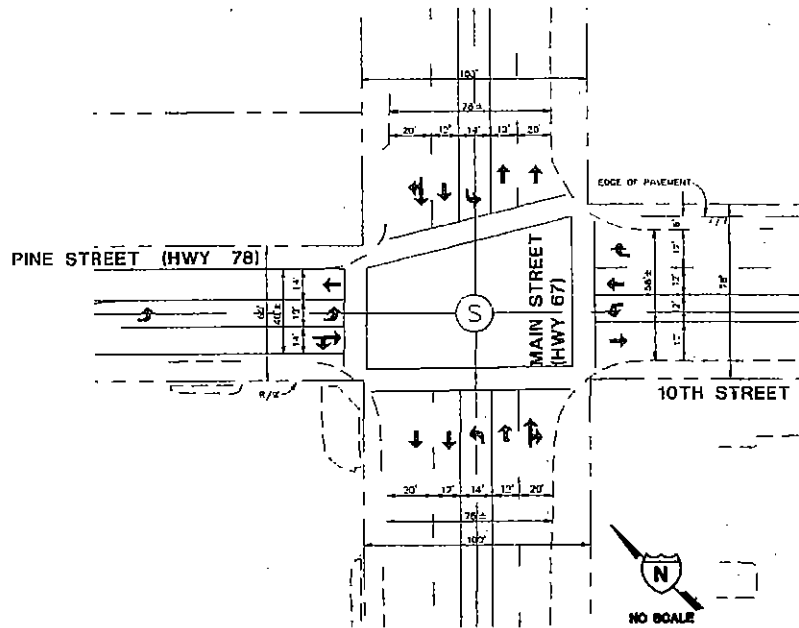


*For details, please refer to Appendix M for 24x36 large scale drawings at each location.

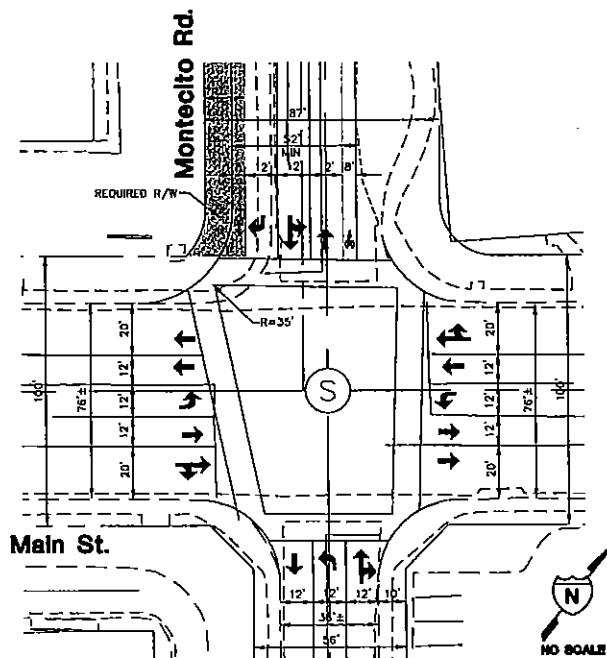
SOURCE
Stevens Cresto Engineering

Intersection 2* - Pine Street (SR-78) at Olive Street

FIGURE ES-2 Intersection Improvements



Intersection 3*- Pine Street (SR-78) at Main Street (SR-67)



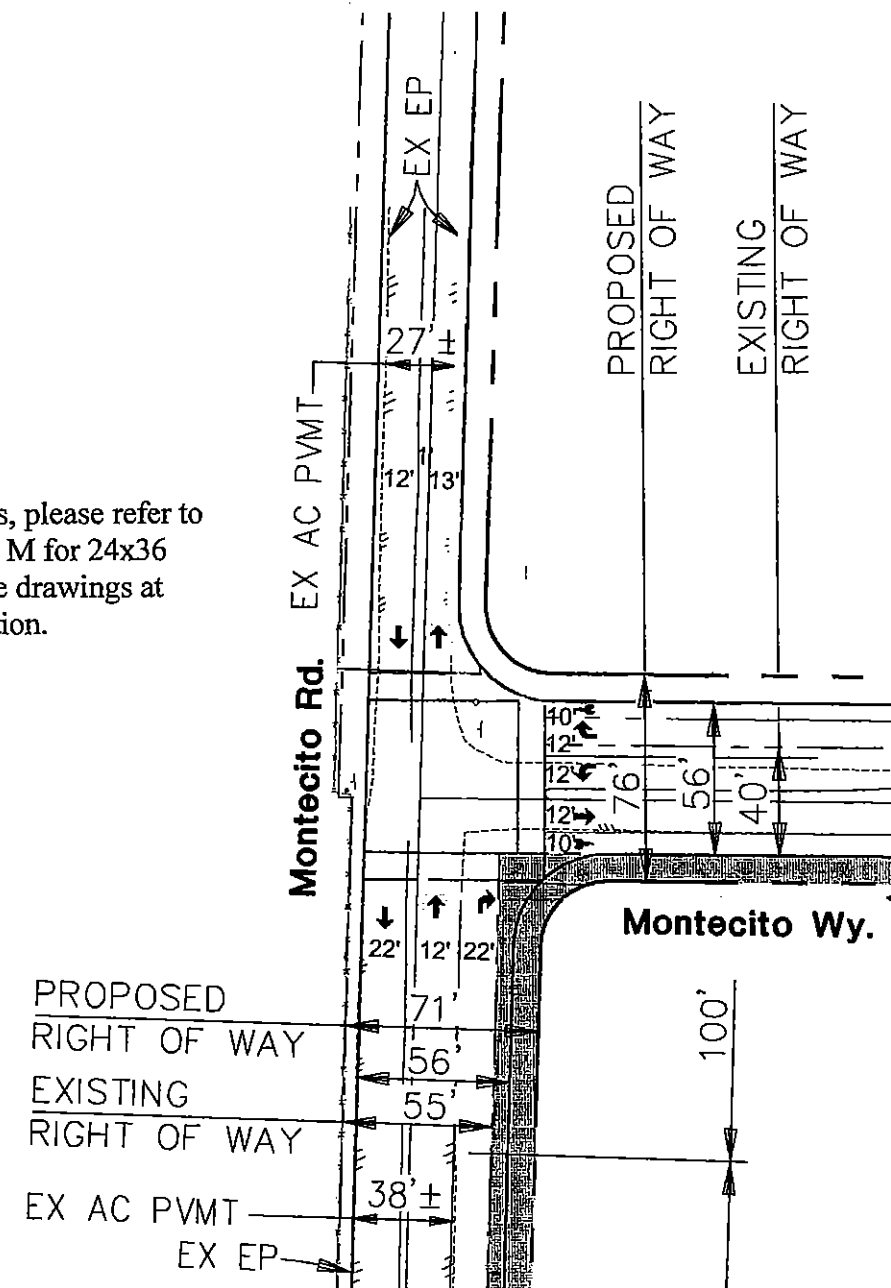
* For details, please refer to Appendix M for 24x36 large scale drawings at each location.

SOURCE
Stevens Cresto Engineering

Intersection 4*- Main Street (SR-67) at Montecito Road

FIGURE ES-3 Intersection Improvements

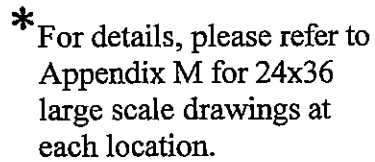
* For details, please refer to
 Appendix M for 24x36
 large scale drawings at
 each location.



Intersection 5* - Montecito Way at Montecito Road

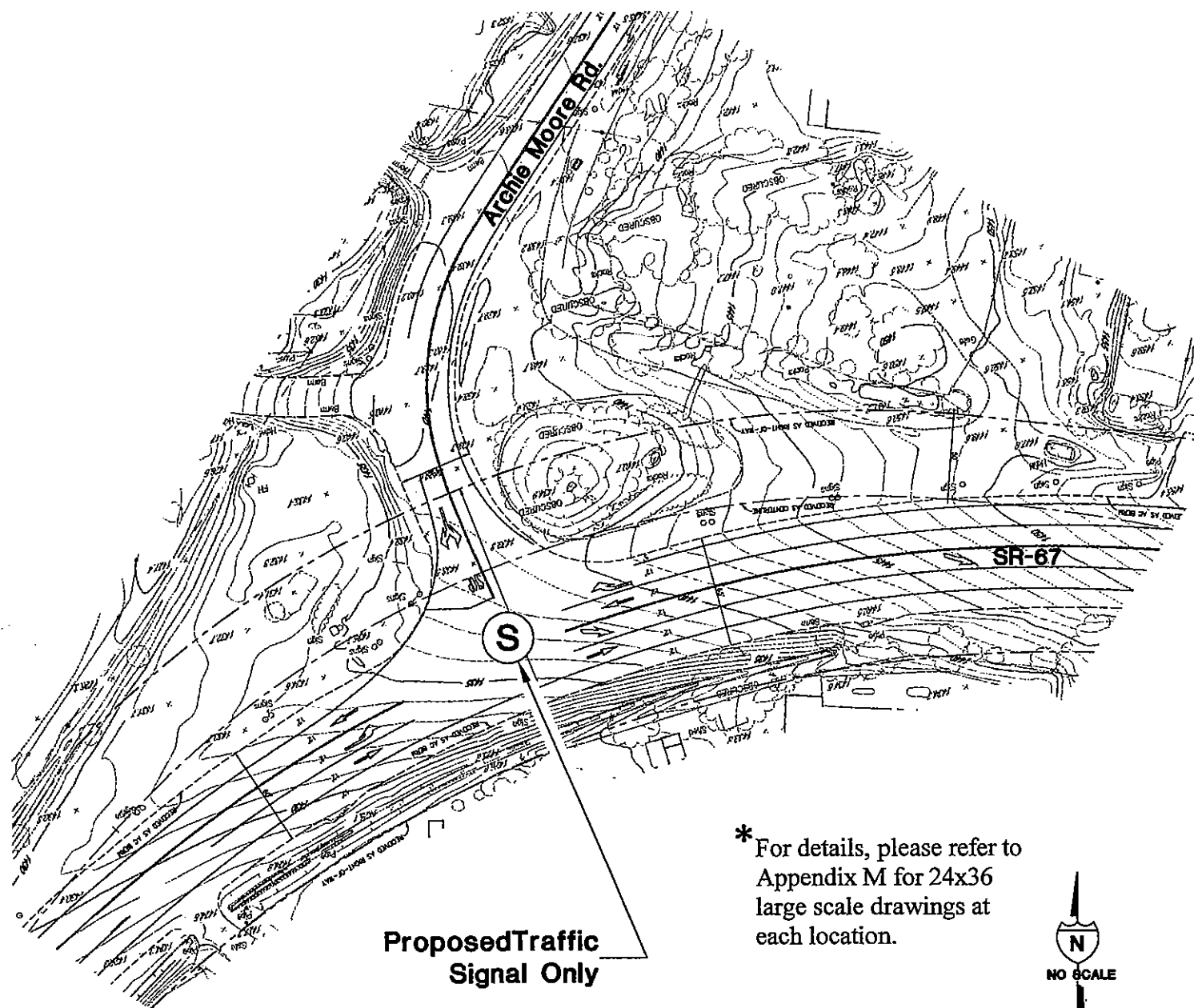


FIGURE ES-4
 Intersection Improvements



SOURCE
Stevens Cresto Engineering

5703



Intersection 7*- Main Street (SR-67) at Archie Moore Road

SOURCE

Stevens Cresto Engineering

FIGURE ES-6
Intersection Improvements

- Except for intersection improvements which would not fully mitigate direct project impacts to roadway segments, as noted in the preceding tables mitigation is not being proposed for road segment impacts on SR-78 and SR-67. Chapter 12 of this report discusses these impacts and mitigation in more detail. Full "D" sheet size (24" x 36") drawings showing proposed intersection improvements are included in **Appendix M.**
- It should also be noted that the project will pay its fair share contribution toward the cost of mitigating cumulative segment impacts by amending and paying the Transportation Development Impact Fee (TIF). If amending the TIF is not accomplished, then overriding considerations will be required for the project cumulative impacted segments on SR-78. These fees may be used to mitigate cumulative segment impacts with the exception of a segment on SR-67 from the Ramona boundary to Poway Road, which is not covered under the TIF program. Direct segment impacts for SR-67 and SR-78 will not be mitigated, therefore findings and a statement of overriding considerations will be required for these segments.
- Subsequent to completion of the Project TIA and immediately preceding public review, traffic review in the community of Ramona indicated that cumulative impacts could occur at two additional intersections (SR 78/Magnolia Avenue and SR 67/14th Street). It is possible that the Proposed Project would not generate a cumulatively considerable contribution to this regional impact. Nonetheless, taking a conservative view, it is assumed that the Project's contribution to the cumulative condition would be significant. Mitigation at these two intersections is discussed below.

- To mitigate impacts to SR 78/Magnolia Avenue, the Project Applicant will make a fair-share contribution via payment toward another proposed project according to Board Policy J-25 or pay into the TIF program prior to occupancy of the 281st house on site. Required mitigation at this location is to be provided by TM 4962 by adding one lane north of SR-78 for a distance of approximately 175 feet plus a 90 foot transition. Estimated project cost is \$50,000. TIF fees should cover the cost for this improvement.
- With regard to the SR 67/14th Street impact, the Project Applicant will make a fair-share contribution via payment toward another proposed project according to Board Policy J-25 or pay into the TIF program prior to occupancy of the 281st house on site. Improvements at this location may include a new north to eastbound right turn lane, a minor signal modification and curb returns at all corners. Cost for improvements are about \$200,000. Based on J-25, a project fair share contribution would be \$17,028.
- As discussed above, the cumulatively considerable contribution to impacts to SR 78/Magnolia Avenue and SR 67/14th Street, which has been conservatively assessed, would be mitigated through a fair-share contribution via payment toward another proposed project according to Board Policy J-25 or pay into the TIF program prior to occupancy of the 281st house on site.

1.0 INTRODUCTION

The Montecito Ranch LLC proposes a Specific Plan, consisting of the development of 417 single-family residential lots, a 600-student charter high school site, a neighborhood park with a trail staging/parking area and a historic park site with a ranch house. The proposed project also would include either a wastewater treatment facility on site or connect to an existing treatment plant off site. Neither of these wastewater treatment options would result in traffic generation. The project (TM 5250) proposes to provide access to the surrounding roadway system via Montecito Ranch Road, which will be constructed through the site. The connection would provide roadway access to SR-78 via Ash Street from the north, and to the south via Montecito Way which would connect to Montecito Road. The project will widen Montecito Road between Montecito Way and SR-67. The project will also widen Montecito Way and Ash Street. This report provides a full analysis for the proposed project with access via Ash Street and Montecito Road.

The County recently completed constructing and improving a new 16th Street/La Brea connection between Montecito Road and Main Street. This important improvement has provided more direct access for existing uses and allows Montecito Road to function at an improved level of service. The Specific Plan Area covers approximately 935 acres in the community of Ramona to the northwest of the downtown area. The site is vacant, and mainly consists of rolling hills and a large flat valley. **Figure 1-1** shows the project location in a regional context.

This study evaluates existing, near-term (Year 2010) and long-term (Year 2030) daily and peak hour traffic. Some circulation system improvements are identified to ensure acceptable operating conditions on most of the roadways and intersections within the study area.

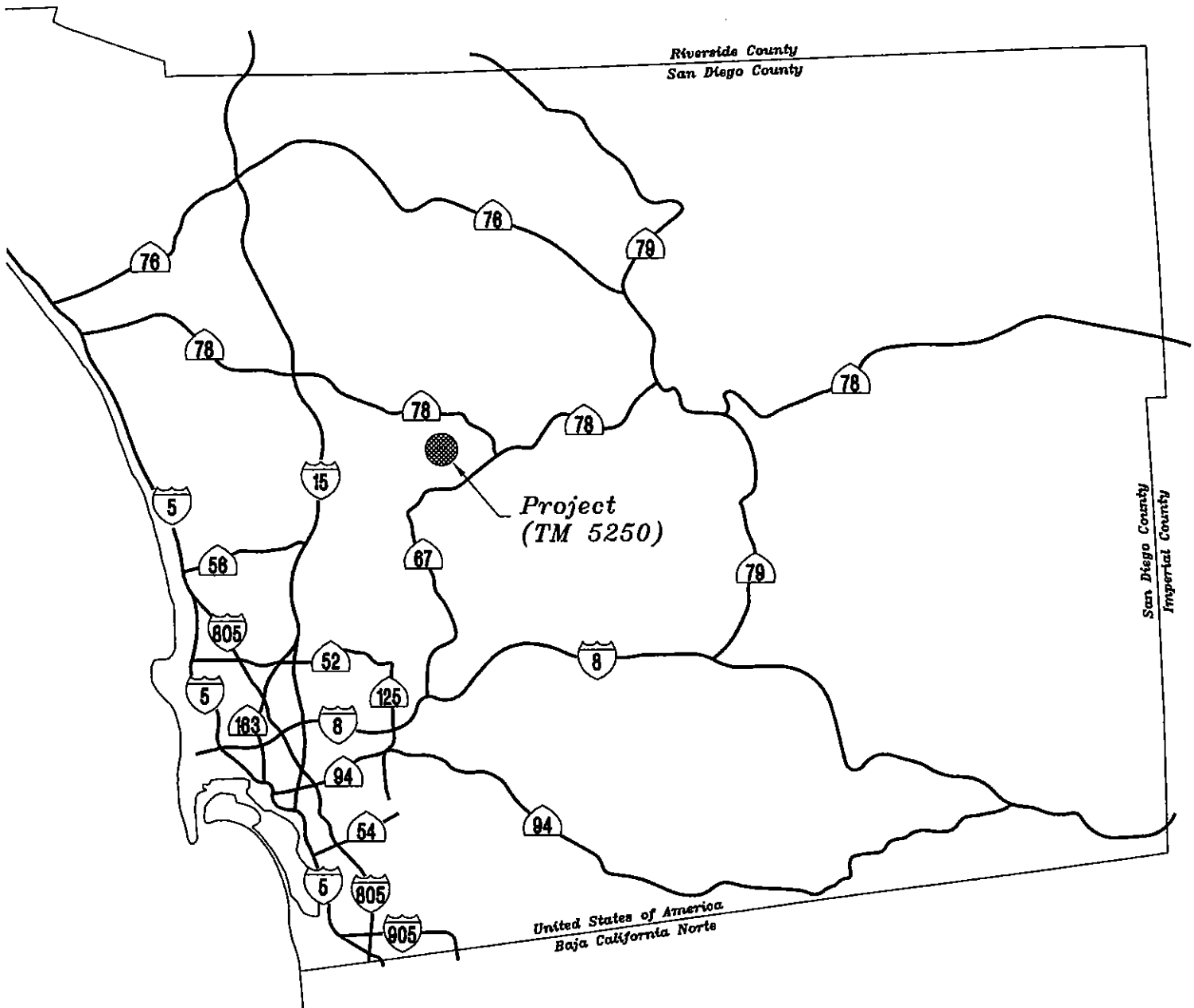


FIGURE 1-1
Project Vicinity Map

2.0 PROPOSED PROJECT

The project proposes to develop 417 single-family residential lots and a neighborhood park. The site also would provide land for a 600-student charter high school, and an historic ranch house site with an equestrian staging/parking area, see **Figure 2-1**. Montecito Ranch Road will be constructed within portions of the project as a “special” Rural Light Collector, and would connect Ash Street with Montecito Way. **Figure 2-2** illustrates the “Special” cross section proposed for Montecito Ranch Road. As shown, a 20 foot wide landscaped median is proposed to be added to the standard Rural Light Collector cross section. Existing Montecito Road east of Montecito Way will be improved to rural light collector standards to provide project access to SR-67 (Main Street). Also both existing Montecito Way and Ash Street will be improved to Rural Light Collector standards except as noted in the Tentative Map. A more complete project description and its various components is included as discussed in the Draft Environmental Impact Report (DEIR).

The Proposed Project would include development of a rural residential community consisting of 417 single-family residential units on lots ranging from 0.5 to 1.8 acres, with a total residential development area of approximately 293.5 acres. Horses would be allowed within lots 1 through 30 in the eastern portion of the site. The Proposed Project would develop and dedicate an 8.3-acre local park, as well as dedicate land for an 11.9-acre historic park site surrounding the existing historic Montecito Ranch House and a 10.6-acre charter high school site. The southern portion of the historic park site would include equestrian facilities, as well as act as an overflow parking area for the parks and school sites. The Proposed Project





would include the extension of a sewer main off-site from the southwestern corner of the site southerly on Montecito Way, easterly on Montecito Road, and southerly on Kalbaugh Street to an existing manhole just south of the southern terminus of Kalbaugh Street that flows to the Santa Maria Wastewater Treatment Plant. The other option available to the Project is an on-site wastewater reclamation facility (WRF) to treat all on-site wastewater and utilize the reclaimed water to irrigate on-site public landscaped areas. If the WRF is constructed, a total of 549.1 acres of open space would be preserved on site. If the WRF is not constructed, there would be 573.8 acres within on-site open space. In addition, the Proposed Project would dedicate approximately 29.0 acres for public roadways within the site, including the construction of Montecito Ranch Road between Ash Street and Montecito Way. The Project includes off-site roadway and water improvements to support the SPA development. The proposed off-site roadway improvements include the widening of off-site segments of Ash Street, Montecito Way, and Montecito Road and improvements to the intersections of Ash Street/Pine Street, Main Street/Pine Street, Main Street/Montecito Road, Montecito Road/Montecito Way, SR 67/Highland Valley Road/Dye Road, and SR 67/Archie Moore Road. Off-site water pipeline connections are proposed within Montecito Way and Ash Street. An off-site 0.91- to 1.26-million gallon water storage tank would be installed just west of the Project site within an adjacent property. An associated pipeline and access road would be constructed from the water storage tank to Montecito Way. An off-site water booster pump station also would be installed at the northwestern corner of the Montecito Road/Montecito Way intersection.

A complete plan to plan comparison and discussion of the adopted Circulation Element (CE), the proposed County 2020 Circulation Plan and the proposed project road system is provided in Section 11.3.

3.0 STUDY METHODOLOGY AND STUDY AREA

3.1 COUNTY OF SAN DIEGO GUIDELINES

Significance criteria and general guidance for this traffic analysis is based on the County of San Diego Guidelines for Determining Significance, Traffic adopted September 26, 2006 and revised effective December 5, 2007. The purpose of these guidelines is to “be used by County staff for the review of discretionary projects and in the review of environmental documents pursuant to the California Environmental Quality Act (CEQA).”

According to the County of San Diego Guidelines, other significant regulations to be considered locally include the Congestion Management Program, County Road Standards, SANTEC/ITE Standards, California Department of Transportation (Caltrans) “Guide for the Preparation of Traffic Impact Studies,” and the City of San Diego “Traffic Impact Study Manual.”

The County of San Diego Guidelines further establishes criteria for determining project impacts to the road system. Part of this determination involves a discussion of direct vs. cumulative impacts. A direct impact “would result solely from the implementation of the project.” A cumulative impact is based on a list of “past, present, and probable future projects” in the area and/or “summary of projects contained in an adopted general plan or related planning document.” This means that a cumulative impact would occur as a result of traffic growth both from the project and from other projects in the area. Thus, a direct project impact would occur when considering the Existing + Project condition and cumulative impacts would occur when considering the Existing + Project + Other Projects condition and the 2030 with project condition.

The County Guidelines also provide thresholds for determining significant impacts. **Figure 3-1** shows the County Guidelines for determining the need and extent of a traffic study. As can be seen, a full traffic study for this project is required because more than 2,400 daily trips and 200 peak trips would be generated. **Figure 3-2** shows the County criteria for determining a significant project impact.

3.2 TRIP DISTRIBUTION

The projected trips were distributed based upon the San Diego Association of Governments (SANDAG) select zone assignment (**Appendix A**) and existing traffic flow on County roads in the project vicinity. The SANDAG select zone is a computerized traffic forecast that has been plotted with project only trips from the project zone shown distributed onto the street network. The traffic model works by matching up productions (in this case, residential units) with attractions (retail, education, office, etc.). These productions and attractions exist in certain discrete locations called traffic analysis zones (TAZ) which correspond to existing or proposed locations throughout the County of San Diego. The productions and attractions are based on land use data supplied by various agencies for use in planning situations such as population growth and traffic forecasts for the San Diego Region. SANDAG collects this data and maintains a region wide traffic forecast model. The select zone plot obtained by USAI is just one zone (the project zone) and the plot shows how that zone ties into the surrounding geographic area. This is how project trip distribution percentages are calculated and why they are applied. When appropriate, based on consultation with County and CalTrans staff, adjustments to the project only trip distributions are made. Adjustments to the computer traffic distribution were made based on more detailed analysis using select link data. A full discussion of the adjustments and basis for them is contained in **Appendix A**.

**County Staff Criteria for the Need
To Prepare a Traffic Impact Study (TIS)**

<u>Project Generated Traffic*</u>	<u>Focused TIS Needed</u>	<u>Full TIS Needed</u>	<u>Congestion Management Analysis Needed</u>
Less than 200 Average Daily Trips OR Less than 20 Peak Hour Trips	No	No	No
500 Average Daily Trips OR 50 Peak Hour Trips	Yes	No	No
1,000 Average Daily Trips OR 100 Peak Hour Trips	No	Yes	No
2,400 Average Daily Trips OR 200 Peak Hour Trips	No	Yes	Yes

* Other situations could result in a request for an Issue Specific and/or Focused Traffic Impact Study. These include, but are not limited to, those issues addressed in this report.

NOTE: Analysis of cumulative traffic impacts may require a Traffic Impact Study, even when project generated traffic volumes alone do not.

FIGURE 3-1
Guidelines For Determination of Traffic Study Scope

- **The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a Circulation Element Road, State Highway or intersection currently operating at LOS E or LOS F as identified in Table 1.**

Table 1

**Measures of Significant Project Impacts to Congestion
Allowable Increases on Congested Roads and Intersections**

Road Segments			
	2-LANE ROAD	4-LANE ROAD	6-LANE ROAD
LOS E	200 ADT	400 ADT	600 ADT
LOS F	100 ADT	200 ADT	300 ADT

Intersections		
	SIGNALIZED	UNSIGNALIZED
LOS E	Delay of 2 seconds	20 peak hour trips on a critical movement
LOS F	Delay of 1 second, or 5 peak hour trips on a critical movement	5 peak hour trips on a critical movement

Note: A critical movement is one that is experiencing excessive queues.

Note: By adding proposed project trips to all other trips from a list of projects, these same tables are used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes any trips must mitigate a share of the cumulative impacts.

Note: The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.

The County of San Diego Public Road Standards include a table which establishes levels of service for County Circulation Element roads based upon average daily trips. This table shall be used in determining the level of service for County Circulation Element roads. The Highway Capacity Manual (HCM) includes analysis criteria for the assessment of the level of service for two-lane highways. The Director of Public Works may, based upon a review of the operational characteristics of the roadway, designate that a HCM analysis be used to determine the level of service for a two-lane County arterial in lieu of the level of service table provided in the County of San Diego Public Road Standards.

In determining the level of service for road segments and intersections outside of the County of San Diego's jurisdiction, the level of service standards for the jurisdiction or agency (Caltrans) shall be used. Early coordination with the affected jurisdiction and/or agency (Caltrans) should be conducted during the preparation of the traffic impact study.

FIGURE 3-2

Measures of Significant Project Impacts

The traffic model was run based upon a SA-330 connection as proposed by the County in their 2020 Circulation Element update. A direct SA-330 connection will attract more traffic than an indirect i.e. via Montecito Road and SR-67 connection. This analysis therefore used the same i.e. conservative, SA-330 volumes from the model but manually redistributed to Montecito Road and Main Street southwesterly of the SR-67, Montecito Road connection. As discussed above, this approach provides a conservative (i.e. higher) estimate of traffic on Montecito Road because it is very likely that more traffic was manually diverted to and evaluated on Montecito Road. The impacts on Montecito Road are therefore most likely overstated but fully mitigated by the recommended phase 2 project widening to two lane rural collector standards.

3.3 SEGMENT LOS THRESHOLD

When analyzing street segments, the level of service (LOS) must be determined. LOS is a measure used to describe the conditions of traffic flow. LOS is expressed using letter designations from "A" to "F." LOS "A" represents the best case and LOS "F" represents the worst case. Generally LOS "A" through "C" represents free flowing traffic conditions with little or no delay. LOS "D" represents limited congestion and some delay, however, the duration of periods of delay are acceptable to most people. LOS "E" and "F" represent significant delays on local streets which are generally not accepted for urban design purposes. The LOS descriptions are from Chapter 9 of the Highway Capacity Manual (Transportation Research Board, 2000).

The County of San Diego (see [Appendix A](#)) has developed LOS threshold tables based on the different

functional street classifications and their ability to carry traffic. Actual capacity on some roadway segments may be higher due to intersection widening, restricted access and lane widening. For the County of San Diego, Policy 1.1 of the Public Facility Element states that new development shall provide on-site improvements to maintain an LOS "C" on CE roads during peak hours. New development shall provide off-site improvements to "contribute to the overall achievement of an LOS "D" on CE roads."

To apply policy 1.1 for on-site facilities, Table 1 shown on **Figure 3-2** is applied. As noted for road segments, if the future LOS on a road segment with project traffic is either E or F, and the project adds 200 or 100 daily trips, respectively, to the segment, project traffic is significant and mitigation (i.e., widening) is required to reduce the direct project impact.

For intersections, a similar procedure is followed, except there are two categories (i.e., signalized and unsignalized criteria) to apply. If an intersection is signalized and the LOS is E, up to a two (2) second change in delay for project traffic is allowed. If more than a two second change in delay occurs as the result of project traffic, a direct project impact would occur, which would require mitigation. For a LOS F, a change in delay of more than 1 second or 5 peak trips on a critical movement would constitute a significant impact.

Policy 1.2 requires review of all General Plan amendments and re-zones to be sure the circulation system is not over burdened. This traffic study, along with the EIR, provides the information needed by decision makers to make their findings.

A project cumulative travel forecast is prepared using the SANDAG Regional 2030 Traffic Model. The forecast provides both project only and cumulative traffic forecast values to determine if a project creates impacts to CE roads which may create the need for road reclassification. This project analysis includes an evaluation of cumulative 2030 impacts both with and without the proposed project.

Another evaluation technique is used to determine if project impacts along a road segment or corridor are perceptible to an average driver. The Year 2000 Highway Capacity Manual software has a corridor analysis procedure which is useful for determining average changes in speed due to a variety of factors such as intersection spacing, number of intersections, lane and shoulder widths, and intersection control (signal or other control). These considerations are entered into the model and an average change in speed is determined. Generally, for low changes in an average speed of one to two miles per hour, this magnitude of differences is barely perceptible to most drivers.

3.4 INTERSECTION LOS PROCEDURES

The County of San Diego Draft Guidelines and Regional Congestion Management Program (CMP) guidelines, as adopted by SANDAG, determine the procedures to be used for intersection peak hour analysis. To determine an intersection peak hour LOS, the County guidelines require use of the most recent procedure from Chapters 16 and 17 of the Highway Capacity Manual (Transportation Research Board, 2000). The procedure in Chapters 16 and 17 which is used to analyze signalized intersections is the "operational method." This method determines LOS based on total vehicle delay expressed in seconds.

A computer program referred to as HCS 2000 is used to complete the analysis. As discussed above, guidelines have established LOS "D" as the objective for intersections and street segments.

3.5 CMP ENHANCED CEQA REVIEW GUIDELINES

The Congestion Management Program Regional Guidelines were developed by the SANDAG to provide a set of procedures for completing enhanced CEQA review for certain projects. The guidelines stipulate that any development project generating 2,400 or more average daily trips, or 200 or more peak hour trips must be evaluated in accordance with the requirements of the Regional CMP. The CMP analysis must include the traffic LOS impacts on affected freeways and Regionally Significant Arterial (RSA) systems, which include all designated CMP roadways. In order to conform to the region's CMP, the local jurisdiction must adopt and implement a land use analysis program to assess impacts of land use decisions on the regional transportation system.

A review of the trip generation from **Table 5-1** compared to the CMP requirements is summarized below:

	Montecito Ranch	CMP Requirements
ADT	5,885	> 2400
Peak Hour	587	> 200

As shown, Montecito Ranch traffic volumes are above these thresholds. Therefore, a CMP level of analysis is required.

3.6 STUDY AREA

The study area for a project is determined using guidelines developed by SANDAG, along with consultation with staff. Information that is used to identify likely project impacts after a project is built is a Select Zone Travel Forecast. The forecast provides a project only distribution of traffic, which is then used for the initial assessment of the location and magnitude of project traffic impacts. This information is then reviewed by staff and a consensus on a project study area is identified. Once a study area is determined, street or road segments and intersections are identified for analysis. Generally, CE road intersections within the study area are evaluated.

For the Montecito Ranch project, a select zone travel forecast was prepared at SANDAG using the Series 10 2030 traffic model. Appendix A provides the actual select zone information that was used for this analysis. Also, shown in Appendix A is the resulting project traffic distribution and the basis for a recommended study area. Based on this data and the process described above, the project study area is shown on **Figure 3-3**.

In addition to the process described above, USAI consulted with County Department of Public Works (DPW) staff. They requested that two additional intersections be added to our study, namely:

1. SR-67 at Highland Valley Road/Dye Road
2. SR-67 at Archie Moore Road

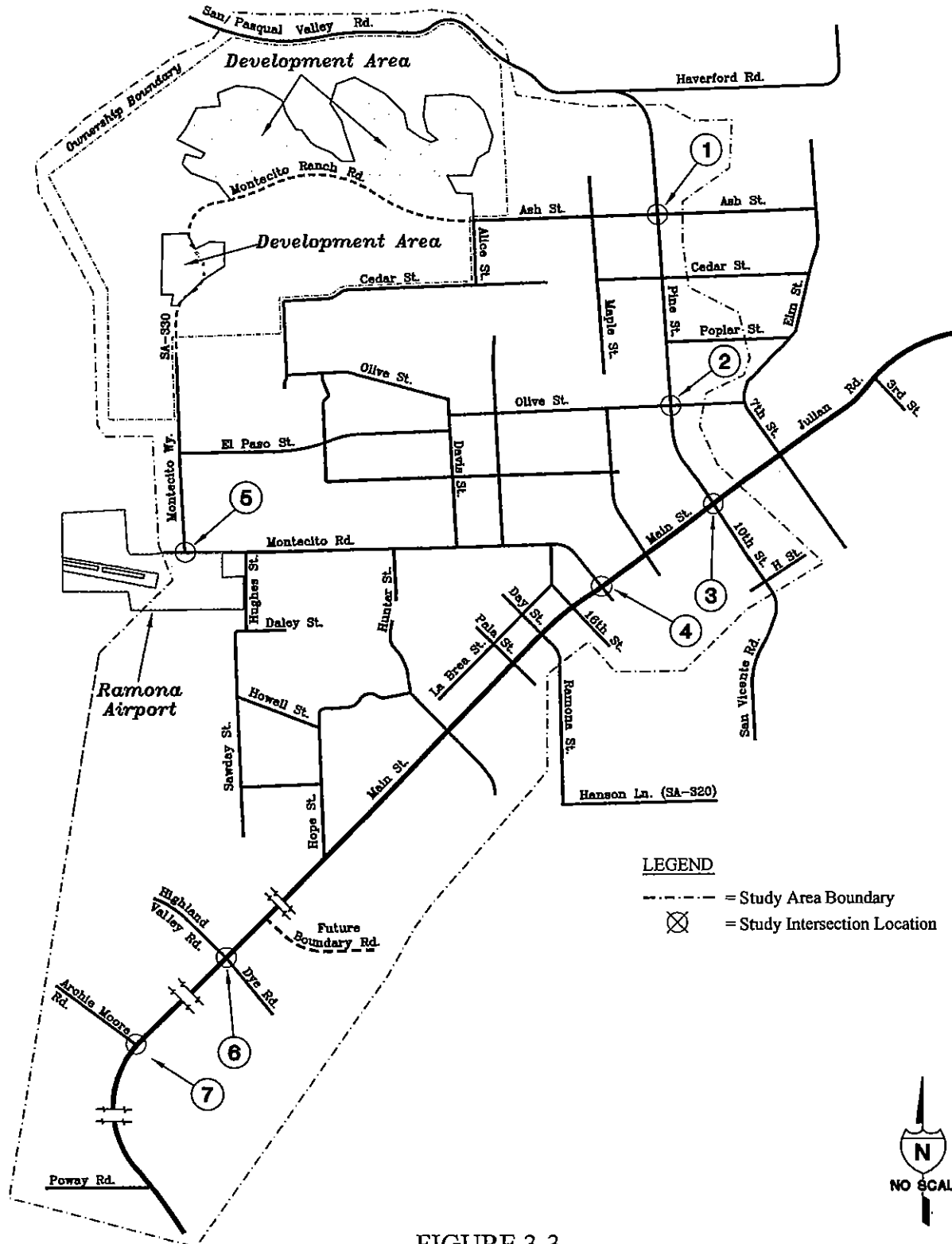


FIGURE 3-3
 Project Study Area / Intersection Key

There are two basic reasons for adding these additional intersections. First, there is considerable community interest with regard to the need for improvements at the two locations. Second, possible fair share contributions for all projects in the area may be requested by both Caltrans and the County. **Table 3-1** summarizes the nineteen street segments and seven intersections studies in the analysis.

TABLE 3-1

Study Area Street Segments & Intersections

Street Segments	
Road	Segment
Pine Street (SR-78)	Haverford Road - Ash Street
	Ash Street - Olive Street
	Olive Street - Main Street
10th Street	Main Street - H Street
Main Street (SR-78)	7 th Street - 10 th Street
Main Street (SR-67)	10 th Street - Montecito Road
	Montecito Road - Hunter Street
	Hunter Street - Future Boundary Road
	Future Boundary Road - Highland Valley Road/Dye Road
	Highland Valley Road/Dye Road - Archie Moore Road
Montecito Way	Archie Moore Road - Poway Road
	Montecito Ranch Road - Montecito Road
	Montecito Road - Main Street (SR-67)
Montecito Ranch Road	Project west access to Montecito Way
	Between Main Project Access Points
Ash Street	East Project Access - Pine Street (SR-78)
	Pine Street (SR-78) - Elm Street
Montecito Road	Montecito Way - Davis Street
	Davis Street - Main Street (SR-67)

Intersections	
Number	Intersection
1	Ash Street at Pine Street (SR-78)
2	Pine Street (SR-78) at Olive Street
3	Pine Street (SR-78) at Main Street (SR-67)
4	Main Street (SR-67) at Montecito Road
5	Montecito Way at Montecito Road
6	Main Street (SR-67) at Highland Valley Road
7	Main Street (SR-67) at Archie Moore Road

3.7 TRAFFIC MODEL

As previously mentioned, the SANDAG Regional Series 10, 2030 traffic model was used as the basis for this analysis. Several changes were made to the model. First, in the project area one traffic analysis zone was split into three zones and the centroid load points were adjusted to match the development concept for the proposed project. These development changes are shown in the select zone plot contained in Appendix A. Second, the street/road system was modified to reflect the proposed project. The specific road network changes included the removal of SA-603 between Rangeland Road and SR-78, the removal of SC-931 between Montecito Way and Rangeland Road, the realignment of Future Montecito Way for the segment south of Montecito Road to SR-67, and the addition of a two-lane rural light collector between Montecito Road and SR-78 through the project area. Except for land uses in one Traffic Analysis Zone (TAZ) south of town, there were no other changes to the model.

As previously discussed, once model forecast volumes were determined this traffic was manually redistributed to Montecito Road. Since Montecito Road is the proposed access route for the project and the project is willing to improve Montecito Road to rural light collector standards even with a conservative estimate of through traffic, these improvements can be made with only minimal new environmental study.

4.0 EXISTING CONDITIONS

Regional access to the proposed project is provided via SR-67 from the southwest and SR-78 from the north and east. Local access to the project site is available via an extension of Ash Street, construction of a new Montecito Ranch Road, a southerly extension of Montecito Way and existing Montecito Road. Following is a discussion of these access routes in the project area. It should be noted that most of the roadways discussed below may be found in the County's bicycle network system. Planned bikeway facilities may be found in the County's Bicycle Transportation Plan for the Ramona community.

4.1 EXISTING ROADWAY CONDITIONS

SR-78 (Pine Street) extends generally in a north-south direction from SR-67 (Main Street) in the Ramona community to the north/northwest, eventually reaching I-15 in the City of Escondido to the northwest. In the Ramona community, north of SR-67, SR-78 is two lanes with a pavement width that varies from 32-feet to 64-feet and variable shoulder widths.

SR-67 (Main Street) generally traverses in a northeast-southwest direction through the Ramona community and extends to the south, eventually reaching I-8 in the City of El Cajon. In the Ramona community, SR-67 is two or four lanes with pavement widths that vary from 40-feet to 78-feet and variable shoulder widths.

Ash Street extends in an east-west direction from Elm Street to Alice Street in the northern portion of the Ramona community. Ash Street is a two-lane road with 24-feet of pavement and variable shoulder widths.

The intersection of Ash Street and SR-78 has recently been widened to provide northbound and southbound left turn lanes.

Montecito Way extends north from Montecito Road to Sonora Way. Montecito Way is a two-lane road with 24-feet of pavement and variable shoulder widths which vary from 4 to 10 feet.

Montecito Road extends northwest and then west from SR-67 to the Ramona Airport. Montecito Road is a two-lane road with variable widths of pavement (30-36 feet) and shoulders of variable widths (4-8 feet wide).

The County recently improved segments of 16th Street and La Brea Street near the intersection of SR-67 and Montecito Road adjacent to the Sheriff's substation. These two street improvements are important because apartments and other uses in the area, i.e., the library and Sheriff's substation, all used Montecito Road north of SR-67 for access. These roads were dirt, and in some cases did not connect. Also, the roads were impassible whenever it rained. With the new roads, access to and from the area is improved and traffic on Montecito Road is reduced. Also, access to Main Street is now more direct and the intersection of SR-67 and Montecito Road was relieved. In addition, a traffic signal has been installed at 14th Street to facilitate access to and from the new streets at SR-67.

Existing lane configurations and traffic control for intersections along the recommended project access routes are shown on **Figure 4-1**. Daily traffic volumes and peak traffic is discussed in the next section of this report.

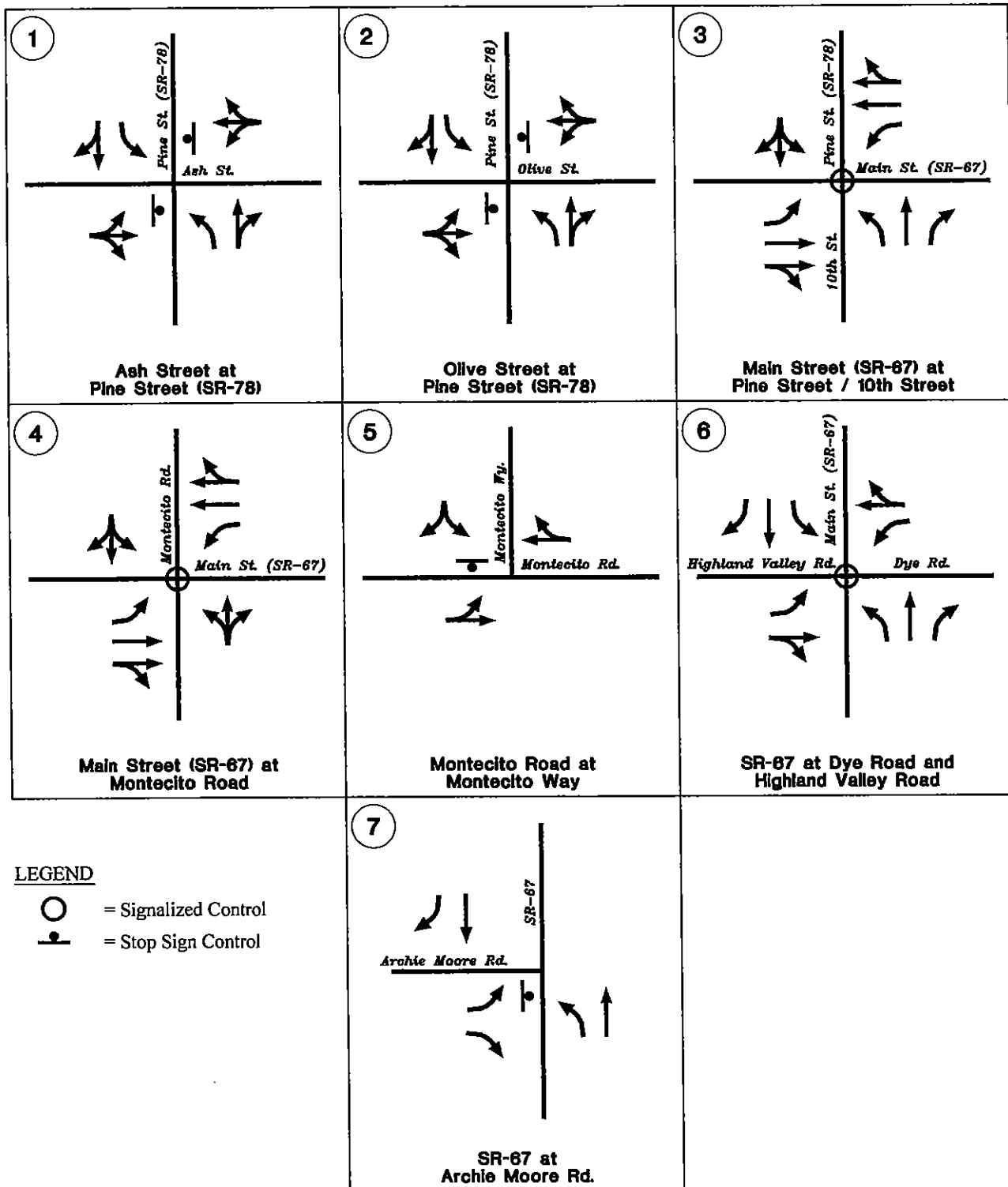


FIGURE 4-1
Existing Lane Configuration & Traffic Control

4.2 EXISTING TRAFFIC

Existing daily (24-hour) traffic volumes were compiled with assistance from DPW from traffic studies conducted for projects in the area, and SANDAG's website, and the Caltrans' website. Existing counts were updated to 2004 based on Ramona traffic consultant coordination efforts. Also, at the request of Caltrans, new counts, 2007, were obtained on SR-67 at Highland Valley Road. Existing daily traffic volumes on the study area roadway segments are summarized on **Figure 4-2**. For the actual traffic count data see **Appendix B**.

Morning and afternoon peak period traffic volume counts were obtained for the study area intersections. Each intersection was counted for two hours during the morning peak period (between 7:00 and 9:00 AM) and for two hours during the afternoon peak period (between 4:00 and 6:00 PM). The counts resulted in the determination of peak hourly traffic volumes at the study area intersections. Existing morning and afternoon peak hour traffic volumes at the study intersections are summarized on **Figure 4-3**.

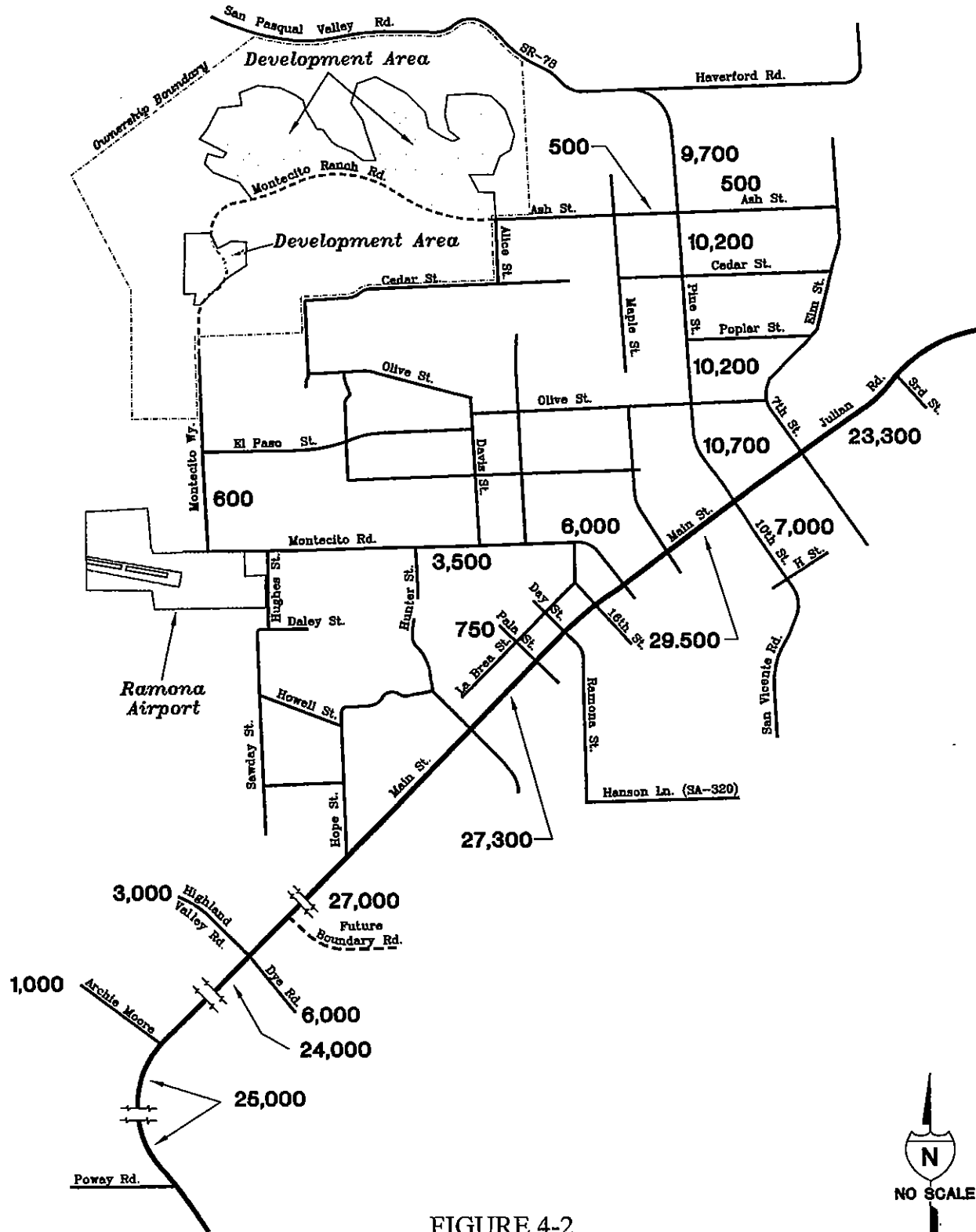


FIGURE 4-2
 Existing Average Daily Traffic

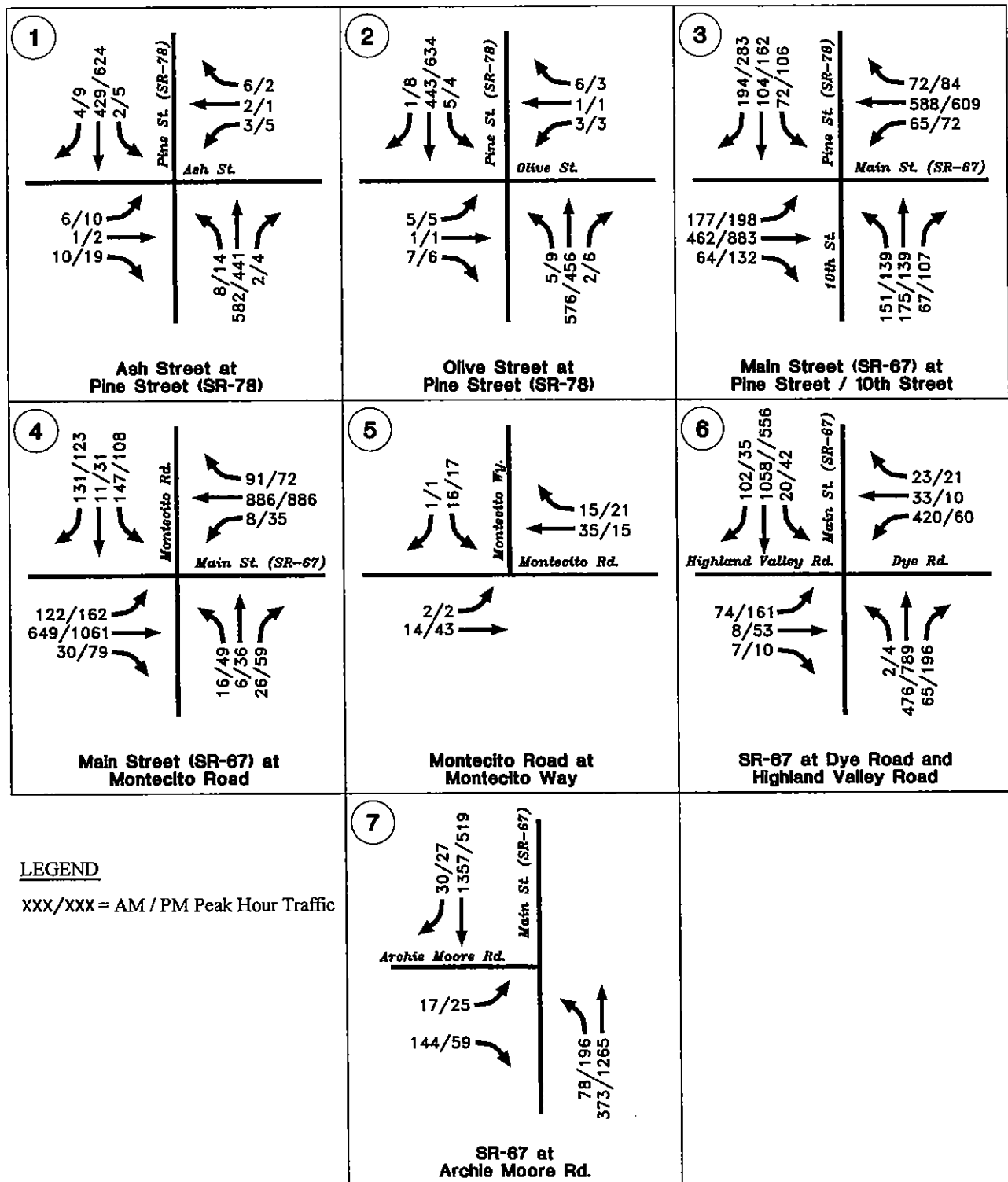


FIGURE 4-3
Existing AM/PM Peak Hour Traffic

4.3 EXISTING LEVEL OF SERVICE

4.3.1 Road Segments

To determine road segment LOS for study area roadways, we determined the existing improvements functional classification based on the County of San Diego Public Road Standards. Roadway capacity for each functional classification is expressed in terms of maximum daily traffic for each LOS designation (LOS "A" through LOS "F"). The San Diego Public Road Traffic/Level of Service Standards are summarized in Appendix A.

A comparison of the existing daily traffic volumes to the estimated roadway capacity for study area roadways is summarized on **Table 4-1**.

As shown in **Table 4-1**, except for four segments on SR-67, all roadway segments presently operate at a level of service "D" or better. Three of the segments of SR-78 operate at level of service "D" while all other roadway segment shown in the table operate at level of service "C" or better.

4.3.2 Intersections

As previously discussed, the study area intersections were analyzed to determine existing peak levels of service using HCS 2000. LOS for intersections is defined in the Highway Capacity Manual (HCM) in terms of delay in seconds per vehicle. Significant impacts at intersections are based on the HCS analysis per the County's significance guidelines. Results of the intersection analysis are shown in **Table 4-2**.

TABLE 4-1
Existing Street Segment Levels of Service

Road	Segment	Class.	Cap.	Volume	V/C	LOS ¹
Pine Street (SR-78)	Ash St. - Haverford Rd.	RLC	16,200	9,700	0.60	D
	Ash St. - Olive St.	RLC	16,200	10,200	0.63	D
	Olive St. - Main St. (SR-67)	RLC	16,200	10,700	0.66	D
10 th Street	Main St.(SR-67) - H Street	RLC	16,200	7,000	0.43	C
Main Street (SR-78)	7 th Street - 10 th Street	M	37,000	23,300	0.63	B
Main Street (SR-67)	10 th St. - Montecito Rd.	M	37,000	29,500	0.80	C
	Montecito Rd. - Hunter St.	M	37,000	27,300	0.74	C
	Hunter St. - Future Boundary Rd	RLC	16,200	27,000	1.67	F
	Future Boundary Rd. - Highland Valley	RLC	16,200	27,000	1.67	F
	Highland Valley Rd. - Archie Moore Rd.	RLC	16,200	24,000	1.48	F
	Archie Moore Rd. - Poway Rd.	RLC	16,200	25,000	1.54	F
Montecito Wy.	Montecito Rd. - Montecito Ranch Rd.	RLC	16,200	600	0.04	A
	Montecito Road - Main Street (SR-67)	DNE ²	---	---	---	---
Montecito Ranch Rd.	Project west access to Montecito Wy.	DNE ²	---	---	---	---
	Between Main Project Access Points	DNE ²	---	---	---	---
Ash St.	East Project Access - Pine St. (SR-78)	RLC	16,200	500	0.03	A
	Pine St. (SR-78) - Elm St.	RLC	16,200	500	0.03	A
Montecito Rd.	Montecito Wy. - Davis St.	RLC	16,200	3,500	0.22	B
	Davis St. - Main St. (SR-67)	RLC	16,200	6,000	0.37	C

Legend:

Class. = Functional Classification
Cap. = Capacity
RLC = Rural Light Collector
M = Major
LOS = Level of Service

Notes:

¹ = Based on County Public Roads Standards, See Appendix A;
² = DNE - Does Not Exist;

TABLE 4-2
Existing Intersection Levels of Service

Number	Intersection	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1	Ash Street at Pine Street (SR-78) ¹	16.8	C	22.2	C
2	Pine Street (SR-78) at Olive Street ¹	16.7	C	19.3	C
3	Pine Street (SR-78) at Main Street ²	33.7	C	58.7	E
4	Main Street (SR-67) at Montecito Road ²	26.0	C	30.2	C
5	Montecito Way at Montecito Road ¹	8.8	A	8.9	A
6	Main Street (SR-67) at Highland Valley Road / Dye Road* ²	54.7	D	22.3	C
7	Main Street (SR-67) at Archie Moore Road ¹	141.0	F	27.4	D

Notes:

LOS = Level of Service

¹ = Unsignalized, worst approach delay

² = Signalized

* = Peak Hour Factor (PHF) is 0.95

As shown in **Table 4-2** except for Archie Moore Road at SR-67 during the AM peak and SR-78 at Main Street in the PM peak, all signalized intersections presently operate at acceptable levels of service, i.e., “D” or better. Under existing conditions, the intersection of Archie Moore at SR-67 operates at a level of service “F” during the AM peak. However, this is due to the fact that unsignalized intersections experience considerable side street delay. The delay is a result of the relatively high through volumes along SR-67. SR-78 at Main Street operates at a level of service “E” during the PM peak. **Appendix C** summarizes the existing condition HCS worksheets.

As noted at the bottom of **Table 4-2**, a peak hour factor (PHF) of 0.95 was used in the analysis. Peak hour factors are sometimes varied from default values (0.90) to represent a more efficient intersection operation. This change is permitted and is standard practice for conducting traffic studies when an intersection is routinely used generally by the same commuters on a daily basis. Due to familiarity, daily users are more efficient.

5.0 PROJECT TRAFFIC GENERATION AND DISTRIBUTION

The project site plan, location and description are included in Section 2 of this report. In this section (Section 5.0) of the report, daily and peak hour traffic generation plus traffic distribution for the project are discussed.

5.1 TRAFFIC GENERATION

Project daily and peak hour traffic generation is based upon SANDAG trip generation rates, see **Appendix D**. **Table 5-1** summarizes the proposed project, which would include the development of 417 single-family residential units, 20.14-acres of park sites (neighborhood and historic) with an equestrian staging area and a future 600-student charter high school site. The table shows project traffic generation used for this analysis.

As shown in the table, project traffic for the 417 residential units, charter high school and parks, is 5,885 average daily trips (ADT) with 569 AM peak and 587 PM peak trips. IN/OUT splits of traffic are 236/334 and 386/202 for the AM and PM peaks respectively.

TABLE 5-1
Project Trip Generation

Use	Amount	*Trip	ADT	AM PEAK HOUR					PM PEAK HOUR				
				%	#	In/Ou	In	Out	%	#	In/Out	In	Out
Residential	417 DU	12 /DU	5,004	8	400	3 : 7	120	280	10	500	7 : 3	350	150
Nbhd. Park / Historical Park	20.14 AC	5 /AC	101	13	13	5 : 5	7	7	9	9	5 : 5	5	5
Charter School	600 St	1.3 /St	780	20	156	7 : 3	109	47	10	78	4 : 6	31	47
Total			5,885		569		236	334		587		386	202

NOTE:

*= Average weekday traffic generation based on SANDAG Traffic Generation Rates, April 2002.
(See Appendix D)

DU= Dwelling Unit
AC= Acre
St= Student

5.2 TRAFFIC DISTRIBUTION

The project study area and the Series 10 select zone travel forecasts were discussed in Section 3.0 of this report. **Figure 5-1** shows the percentage of traffic that is expected to result from buildout of the proposed project. It should be noted that due to the similarity in the road system for both near term and long term, the same distributions is used in this analysis. As shown, conservatively 100% of project traffic generated is assumed to leave the project area, 60% to the west and 40% to the east. As also shown on **Figure 5-1**, project traffic to the east uses SR-78 and SR-67. Also note that the percentage of project traffic reduces as one gets further away from the project. This is because project trip desires (purposes) are met and there is no need to travel further. For example, in the regional traffic model used for this analysis, the Davis Ranch Project was assumed to be built west of the proposed project site. (This model was run prior to the purchase of the Davis Ranch property by The Nature Conservancy for conservation). As shown on **Figure 5-1**, about 9% of project traffic matches in Davis Ranch area, thus project traffic to and from the south on Montecito Way reduces to 5% of total project traffic. Traffic that leaves the project study area boundary (Ramona area) is 5% to the northwest, 5% to the east 6% to the south and 18% to the southwest.

The widening of Montecito Road to Rural Light Collector Standards will mitigate some project impacts and provide capacity for both existing and new traffic. The project will be eligible for TIF credits and reimbursements for the construction cost of TIF roadways and intersections which are funded by the County of San Diego TIF for the Ramona community.



5.3 DAILY PROJECT ONLY TRAFFIC

Based on the project only distribution percentages, project only daily traffic was determined. **Figure 5-2** shows the result of this effort. As shown, the primary project traffic impacts are along Montecito Way, Montecito Road, and SR-78, south of Ash Street.

5.4 AM/PM PEAK HOUR TRAFFIC

Project only peak traffic was determined based on the project only traffic distribution. **Figure 5-3** summarizes the AM and PM peak traffic impacts for the proposed project.

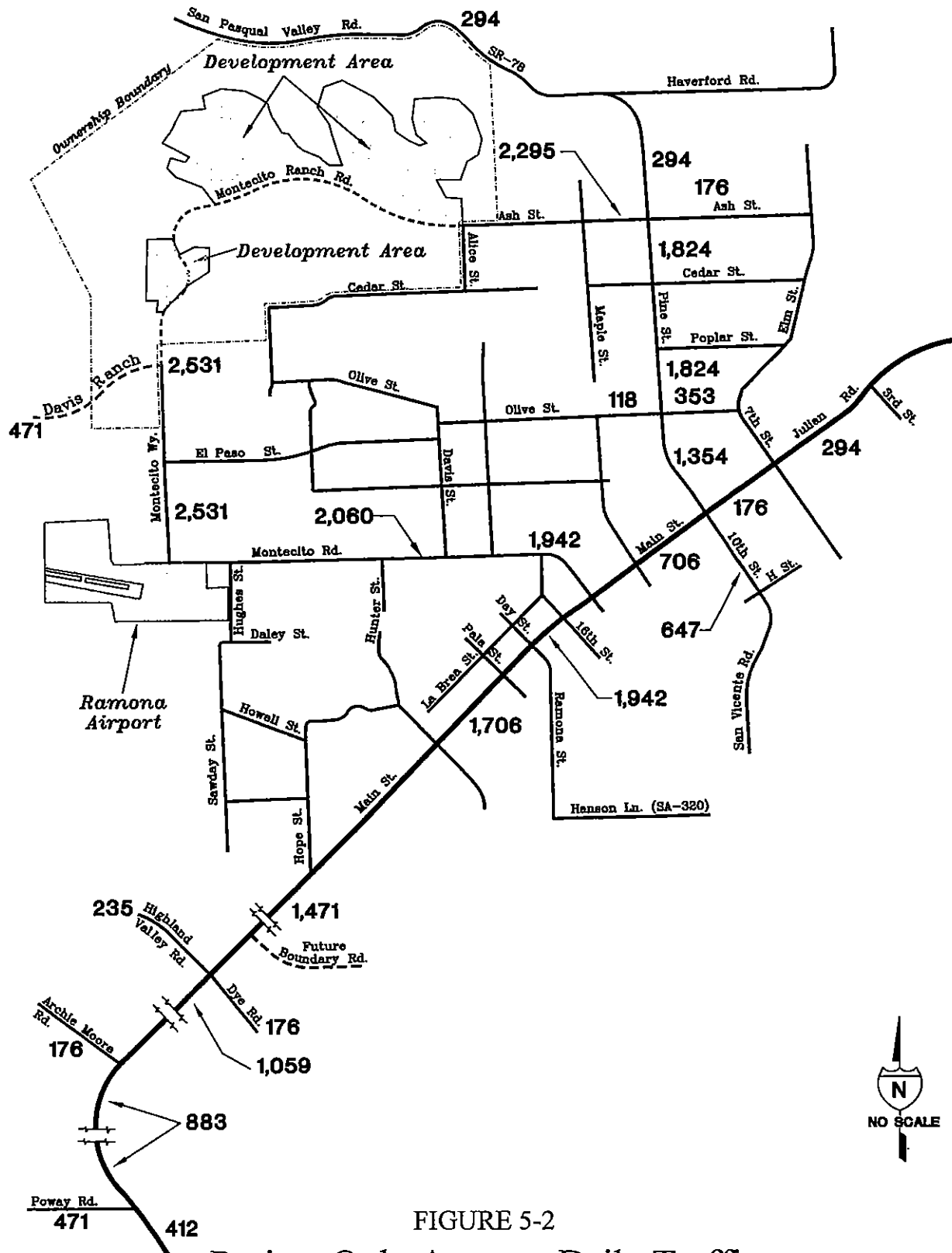


FIGURE 5-2
 Project Only Average Daily Traffic

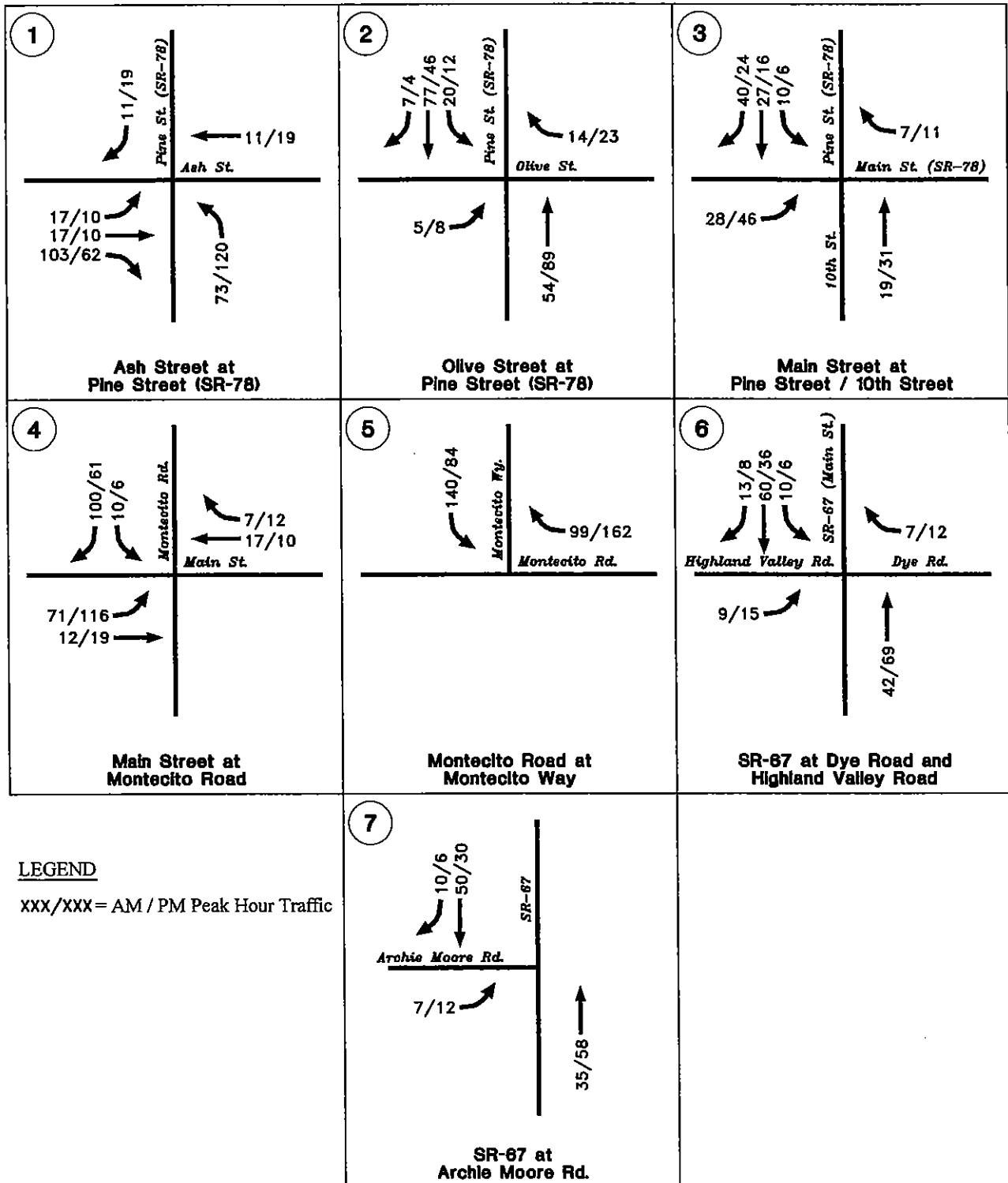


FIGURE 5-3
 Project Only AM/PM Peak Hour Traffic

6.0 EXISTING PLUS PROJECT

This condition was developed by adding project only traffic to the existing condition prior to project mitigation.

6.1 STREET SEGMENTS

Street segment levels of service with project traffic were determined by combining the existing daily volumes from **Figure 4-2** with the project only daily volumes from **Figure 5-2**. **Figure 6-1** shows the results of this effort. Next, we prepared **Table 6-1**, which assumes that off-site roadway segment improvements would be made prior to the addition of project traffic to existing traffic. For example, Ash Street, Montecito Road, and Montecito Way are all assumed to be improved as a Rural Light Collector to 40-foot curb-to-curb in a 60-foot right-of-way. The functional classification column of the table was therefore updated and new levels of service were determined with project traffic added to existing traffic. This approach provides a measure of direct project impacts and later leads to mitigation recommendations.

As shown in **Table 6-1**, with six exceptions, all street segments evaluated provide acceptable levels of service, i.e. "D" or better, when project traffic is added to existing traffic. The six exceptions are along SR-67 between Hunter and Poway Road, where the segments operate at an LOS "F" and along SR-78 between Ash Street and SR-67, where the segments operate at an LOS "E". This means that along these segments, intersection widening and signalization become necessary to help mitigate associated project traffic impacts. Specific intersection improvements based on AM and PM peak hour analysis are proposed in the mitigation section, which is in Section 12.3 of this report.

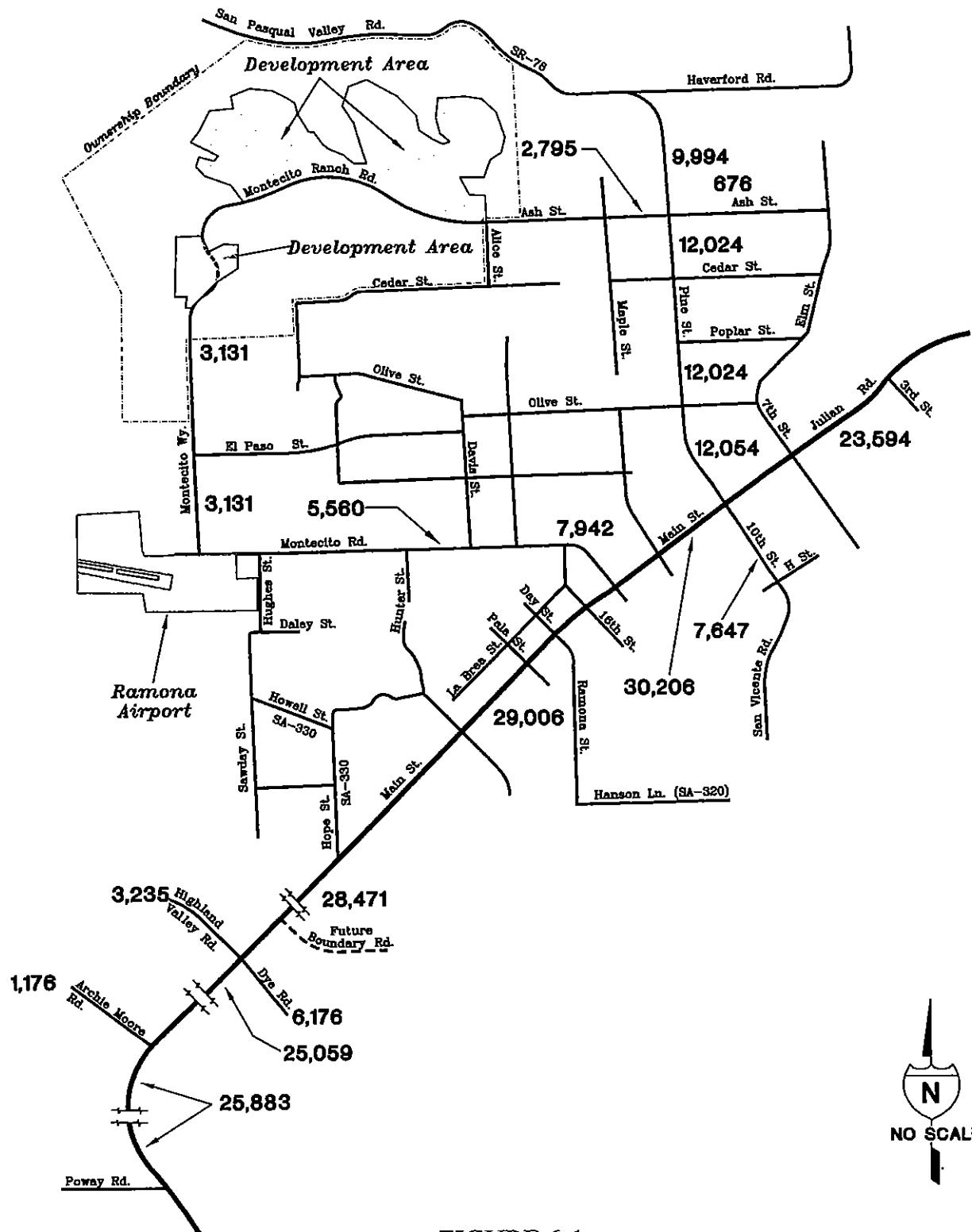


FIGURE 6-1
Existing + Project Average Daily Traffic

TABLE 6-1

**Existing + Project Street Segment Levels of Service
Before Project Mitigation**

Road	Segment	Class.	Cap.	Volume	V/C	LOS ¹
Pine Street (SR-78)	Haverford Rd. - Ash St.	RLC	16,200	9,994	0.62	D
	Ash St. - Olive St.	RLC	16,200	12,024	0.74	E
	Olive St. - Main St. (SR-67)	RLC	16,200	12,054	0.74	E
10th Street	Main St. (SR-67) - H Street	RLC	16,200	7,647	0.47	D
Main Street (SR-78)	7 th Street - 10 th Street	M	37,000	23,594	0.64	B
Main Street (SR-67)	10 th St. - Montecito Rd.	M	37,000	30,206	0.82	D
	Montecito Rd. - Hunter St.	M	37,000	29,006	0.78	C
	Hunter St. - Future Boundary Rd.	RLC	16,200	28,471	1.76	F
	Future Boundary Rd. - Highland Valley	RLC	16,200	28,471	1.76	F
	Highland Valley Rd. - Archie Moore Rd.	RLC	16,200	25,059	1.55	F
	Archie Moore Rd. - Poway Rd.	RLC	16,200	25,883	1.60	F
Montecito Wy.	Montecito Ranch Rd. - Montecito Rd.	RLC	16,200	3,131	0.19	B
	Montecito Rd - Main Street (SR-67)	RLC	Does Not Exist			
Montecito Ranch Rd.	Project west access to Montecito Wy.	RLC	16,200	3,131	0.19	B
	Between Main Project Access Points	Special ²	15,000	2,060	0.14	B
Ash St.	East Project Access - Pine St. (SR-78)	RLC	16,200	2,795	0.17	B
	Pine St. (SR-78) - Elm St.	RLC	16,200	676	0.04	A
Montecito Rd.	Montecito Wy. - Davis St.	RLC	16,200	5,560	0.34	C
	Davis St. - Main St. (SR-67)	RLC	16,200	7,942	0.49	D

Legend:

Class. = Functional Classification
Cap. = Capacity
RLC = Rural Light Collector
M = Major
LOS = Level of Service
V/C = Volume-to-Capacity Ratio

Notes:

- ¹ = Based on County Public Roads Standards, see Table 3-1.
² = Two-lane divided, equivalent to City of San Diego collector with turn lane.

6.2 INTERSECTIONS

Project traffic for the AM and PM peaks was added to existing traffic to identify direct project impacts. **Figure 6-2** shows the result of this effort. **Table 6-2** shows the resulting AM and PM peak levels of service. Six of the seven analyzed intersections would operate at LOS “E” or “F” before mitigation during AM and/or PM peak hours, while the remaining one would operate at acceptable levels of service. With signalization and restriping to provide turn lanes, all direct project impacts can be mitigated. Mitigation is discussed in Chapter 12 of this report. **Appendix E** contains the existing plus project HCS worksheets.

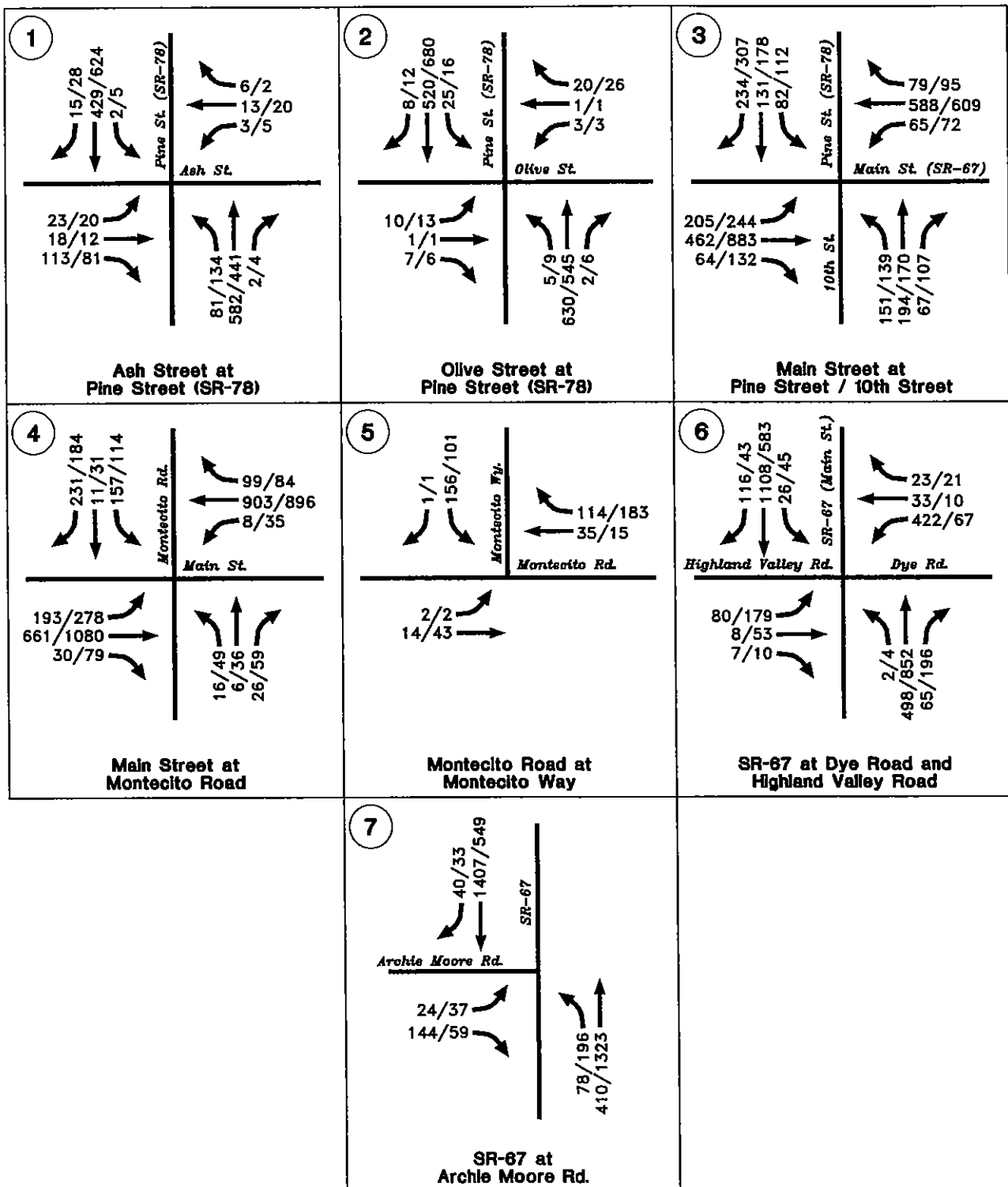


FIGURE 6-2
Existing + Project AM/PM Peak Hour Traffic

TABLE 6-2

**Existing + Project Intersection Levels of Service
Before Project Mitigation**

Number	Intersection	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1	Ash Street at Pine Street (SR-78) ¹	35.6	E	65.8	F
2	Pine Street (SR-78) at Olive Street ¹	31.4	D	40.2	E
3	Pine Street (SR-78) at Main Street (SR-67) ²	44.5	D	62.7	E
4	Main Street (SR-67) at Montecito Road ²	39.1	D	55.9	E
5	Montecito Way at Montecito Road ¹	10.4	B	10.3	B
6	Main Street (SR-67) at Highland Valley Road/Dye Road ^{**2}	133.3	F	23.7	C
7	Main Street (SR-67) at Archie Moore Road ¹	168.3	F	42.6	E

Notes:

¹ = Unsignalized, worst approach delay

² = Signalized

*=Intersection delay is so high, it is beyond the model accuracy.

LOS = Level of Service

** = PHF is 0.95

7.0 **“OTHER PROJECTS”**

To complete this analysis, the Traffic Study Guidelines require the identification of other projects that may affect traffic conditions in the Near Term (2010). Small individual projects may not by themselves result in a significant impact. However, on a cumulative basis, these individual projects may have a significant impact, particularly on SR-78 and SR-67 in the central area of Ramona.

To quantify the cumulative effect of “Other Projects,” a three-step process was followed. First, a database review was conducted by staff to identify possible significant other projects. Second, a series of meetings and discussions with traffic consultants analyzing projects in the vicinity of Ramona was completed. Third, a composite database was developed for review by DPW and County Department of Planning and Land Use (DPLU) staff. These efforts resulted in the following composite estimate of cumulative “Other Projects” traffic for the Ramona area.

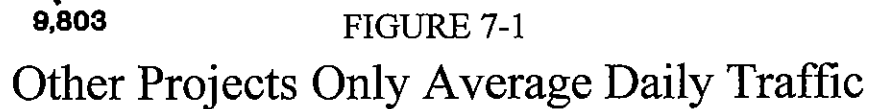
Appendix F shows the results from staff database review. Traffic consultants then collectively reviewed the list to determine project location, traffic generation and distribution characteristics, which projects may have already been completed or partially built that there was no new traffic generation potential and no double counting of traffic impacts. Also, the traffic consultants grouped projects by geographic area and developed composite traffic distribution patterns for the other projects. This effort resulted in a consolidated “other projects traffic” estimate for both SR-78 and SR-67. This information was then provided to DPLU and DPW staff for their review and comments.

Following staff review and validation, the resulting “other projects” traffic estimates were produced and subsequently used for project traffic studies. **Appendix F** to the report provides the individual “other project” cumulative results. The resulting “other projects” daily estimates are shown in **Figure 7-1**. These results were then used for subsequent cumulative impacts studies in this report.

The work described above was completed in July 2004 (07/26/04). Since the project processing period extends over a period of several years, a growth factor was applied to account for unidentified “other projects” from the date of initial analysis to the date of the project hearing set for the Planning Commission. Due to the time, just over three years, between completion of the “other projects” analysis until the present, a re-validation analysis was completed for this project.

A new “other project” analysis was completed and compared to the initial “other projects” analysis. We found that a total of 57 new projects were submitted to the County between July 2004 and July 2007. Based on this new “other projects” analysis, two new tables were prepared. Both tables are included at the end of **Appendix F**.

The two new “other projects” tables show new “other projects”, i.e., since July 2004, that create impacts and previous “other projects” that have been withdrawn or already built at the time of the previous analysis, i.e. they do not create new traffic impacts, but actually reduce projected “other projects” traffic volumes. We found that a total of 110 new units could be added to the Ramona area based on projects submitted to the County between July 2004 through July 2007.



Next we compared the previous “other projects” traffic total from the July 2004 analysis to the “other projects” volumes used in the traffic study. See **Figure 7-1** and the “combined total” 07/26/04 volumes which are on the last page of **Appendix F**. As shown by a comparison of these two figures, the growth factor used in the initial analysis exceeds the actual new “other projects” daily traffic impacts. **Table 7-1** summarizes this comparison. Based on this comparison, it can be concluded that the growth factor used in the earlier analysis more than adequately accounted for new “other projects” that were submitted to the County during the last three years. It should also be noted that additional projects could be added between July 2007 and the hearing date for the project. The analysis is anticipated to remain valid for this period. This can be confirmed through a review of any new project submittals up to the hearing date set for the project. To reflect anticipated “other projects”, a growth potential, growth factor was used for this analysis which varied from 16% to 39% on SR-78 and SR-67. Specifically, a factor of 39% was used on SR-78 northwest of Haverford Road, 24% on SR-78 downtown, 38% on SR-67 through downtown to Highland/Dye Road and 16% on SR-67 from Highland Valley Road/Dye Road to Poway Road. Overall, as shown in **Table 7-1**, the assumed growth rate exceeds actual growth in traffic due to “other projects”.

In order to determine peak hour traffic volumes at intersections, a factoring method was used. In this method, existing peak hour intersection volumes were increased (or factored) by the percentage increase in daily volumes between existing and existing + other projects conditions.

TABLE 7-1

**Comparison of Daily Volumes from
July 2004, Current Analysis and Updated Other Projects**

Route	Location	ADT Analysis (Figure 7-1)	ADT 7/04 Other Projects	Assume ADT Increase Based on Growth Factor	Current New Other Projects ADT Increase*	Growth Factor Valid? (Yes / No)
SR-67	West of Mussey Grade Road	9,397	7,707	1,690	1,100	Yes
SR-67	Boundary Road to Montecito Road	7,867	5,705	2,162	1,100	Yes
SR-78	Pine Street (SR-78) to Magnolia Avenue	7,086	5,707	1,379	1,100	Yes
SR-78	Main Street (SR-67) to Haverford Road	7,076	5,428	1,648	1,100	Yes

* Assumes that 100% of new lots are built and occupied and that 100% of all new traffic generated passes through town on SR-78 and SR-67.

8.0 EXISTING PLUS OTHER PROJECTS

“Other project” traffic without the proposed project traffic was added to existing traffic for a Near Term cumulative evaluation. The results of this effort are discussed below.

8.1 STREET SEGMENTS

Figure 8-1 shows existing average daily traffic volumes with “other projects” traffic added and **Table 8-1** shows the resulting street segment levels of service for existing plus “other projects” traffic. As shown in the table, SR-78 and 10th Street is projected to operate at a level of service “E” or “F” based on segment volume to capacity ratios. Also, SR-67 west of SR-78 is projected to operate at a segment level of service “E” or “F.” All other segments evaluated would operate at a level of service “D” or better.

8.2 INTERSECTIONS

Figure 8-2 shows the AM and PM peak intersection volumes with existing volumes factored as discussed in **Chapter 7.0**. **Table 8-2** includes study area intersection levels of service that would result if “other projects” traffic were added to existing traffic without mitigation. As shown in the table, all intersections would operate at LOS “E” or “F” during AM and/or PM peak hours, except for Montecito Way/Montecito Road. **Appendix G** contains the existing plus other project’s HCS worksheets.

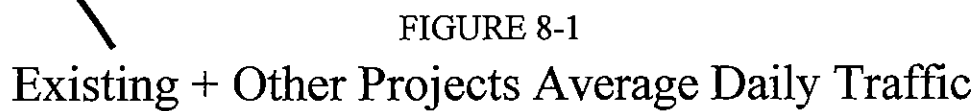


TABLE 8-1

Existing + Other Projects Street Segment Levels of Service

Road	Segment	Class.	Cap.	Volume	V/C	LOS ¹
Pine Street (SR-78)	Haverford Rd. - Ash St.	RLC	16,200	14,191	0.88	E
	Ash St. - Olive St.	RLC	16,200	17,276	1.07	F
	Olive St. - Main St. (SR-67)	RLC	16,200	17,776	1.10	F
10th Street	Main St. (SR-67) - H Street	RLC	16,200	18,063	1.12	F
Main Street (SR-78)	7 th Street - 10 th Street	M	37,000	30,386	0.82	D
Main Street (SR-67)	10 th St. - Montecito Rd.	M	37,000	36,586	0.99	E
	Montecito Rd. - Hunter St.	M	37,000	34,386	0.93	E
	Hunter St. - Future Boundary Rd.	M	16,200	34,867	2.15	F
	Future Boundary Rd. - Highland Valley	RLC	16,200	34,867	2.15	F
	Highland Valley Rd. - Archie Moore Rd.	RLC	16,200	33,397	2.06	F
	Archie Moore Rd. - Poway Rd.	RLC	16,200	34,803	2.15	F
(Montecito Wy.)	Montecito Ranch Rd. - Montecito Rd.	RLC	16,200	600	0.04	A
	Montecito Rd - Main St. (SR-67)	DNE ²	--	--	--	---
Montecito Ranch Rd.	Project west access to Montecito Wy.	DNE ²	--	--	--	--
	Between Main Project Access Points	DNE ²	--	--	--	--
Ash St.	East Project Access - Pine St. (SR-78)	RLC	16,200	500	0.03	A
	Pine St. (SR-78) - Elm St.	RLC	16,200	500	0.03	A
Montecito Rd.	Montecito Wy. - Davis St.	RLC	16,200	4,459	0.28	B
	Davis St. - Main St. (SR-67)	RLC	16,200	6,959	0.43	C

Legend:

Class. = Functional Classification
Cap. = Capacity
RLC = Rural Light Collector
M = Major
LOS = Level of Service
V/C = Volume-to-Capacity Ratio

Notes:

- ¹ = Based on County Public Roads Standards, See Table 3-1;
² = DNE, Does Not Exist
³ = Two-lane divided, equivalent to City of San Diego collector with turn lane.

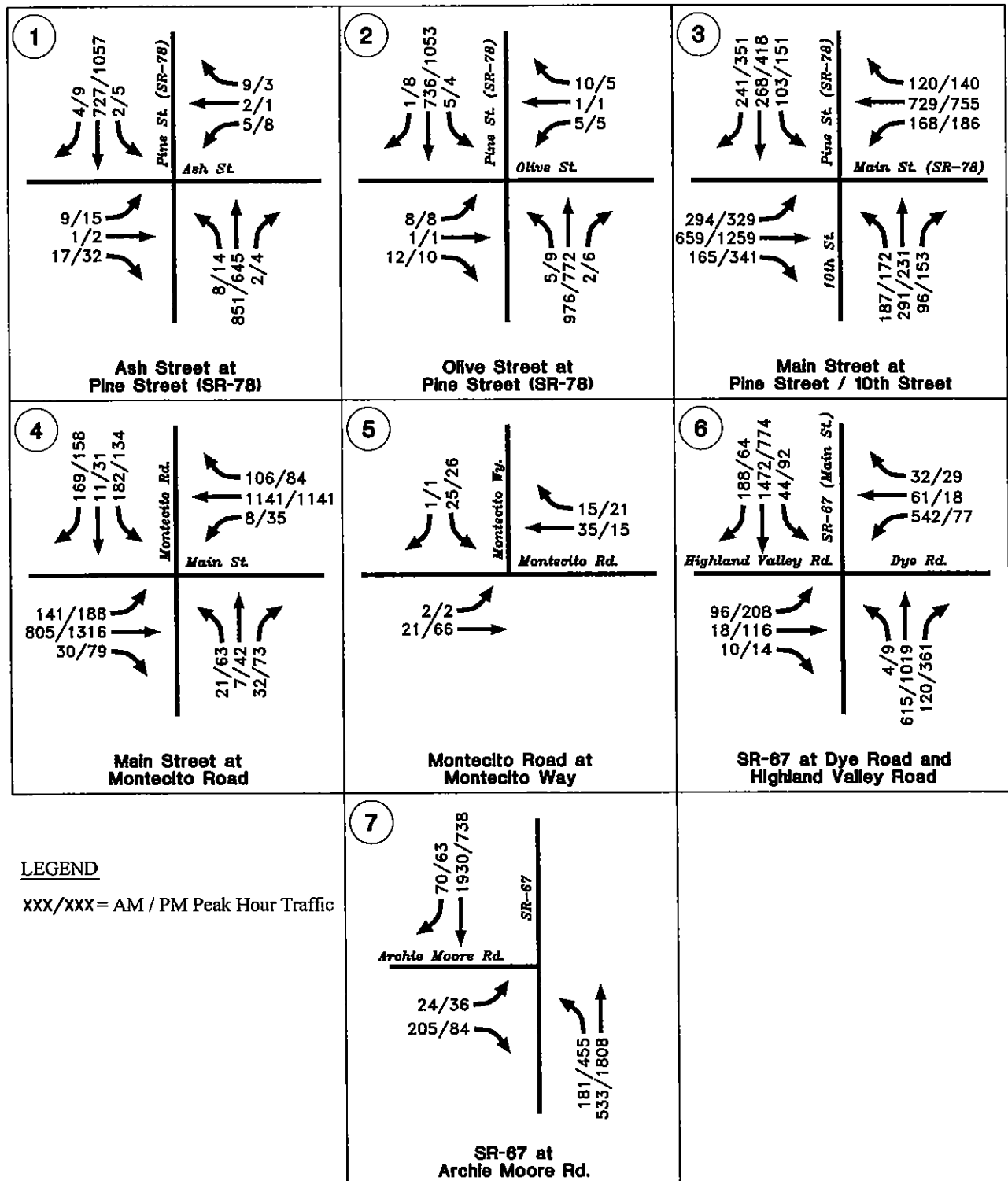


FIGURE 8-2
Existing + Other Projects Only AM/PM Peak Hour Traffic

TABLE 8-2

Existing + Other Projects Intersection Levels of Service

Number	Intersection	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1	Ash Street at Pine Street (SR-78) ¹	43.5	E	100.8	F
2	Pine Street (SR-78) at Olive Street ¹	54.6	F	77.2	F
3	Pine Street (SR-78) at Main Street (SR-67) ²	91.1	F	181.8	F
4	Main Street (SR-67) at Montecito Road ²	37.2	D	58.5	E
5	Montecito Way at Montecito Road ¹	9.2	A	9.3	A
6	Main Street (SR-67) at Highland Valley Road / Dye Road** ²	150.1	F	49.6	D
7	Main Street (SR-67) at Archie Moore Road ¹	*	F	*	F

Notes:

LOS = Level of Service

¹ = Unsignalized, worst approach delay

² = Signalized

* = Intersection delay is so high, it is beyond the model accuracy.

** = PHF is 0.95

9.0 EXISTING PLUS OTHER PROJECTS PLUS PROJECT

In this section of the report, project traffic was added to existing and “other projects” traffic to determine cumulative Near Term (2010) traffic impacts before project mitigation.

9.1 STREET SEGMENTS

Figure 9-1 shows existing plus other projects plus project volumes and **Table 9-1** shows street segment levels of service of the segments evaluated for the proposed project in the Near Term. As shown in the table, SR-78 and 10th Street are projected to operate at a level of service “E” or “F” without intersection or segment widening. Also, SR-67 will operate at a level of service “E” or “F”. All other roadway segments would operate at LOS “D” or better.

9.2 INTERSECTIONS

Figure 9-2 shows the AM and PM peak intersection volumes when project traffic is added to existing plus “other projects” traffic. **Table 9-2** shows the levels of service projected to occur during the AM and PM peaks without any mitigation. As shown, all intersections will operate at LOS “E” or “F” during AM and/or PM peak hours, except for Montecito Way at Montecito Road. **Appendix H** contains the existing plus other projects plus project HCS worksheets.

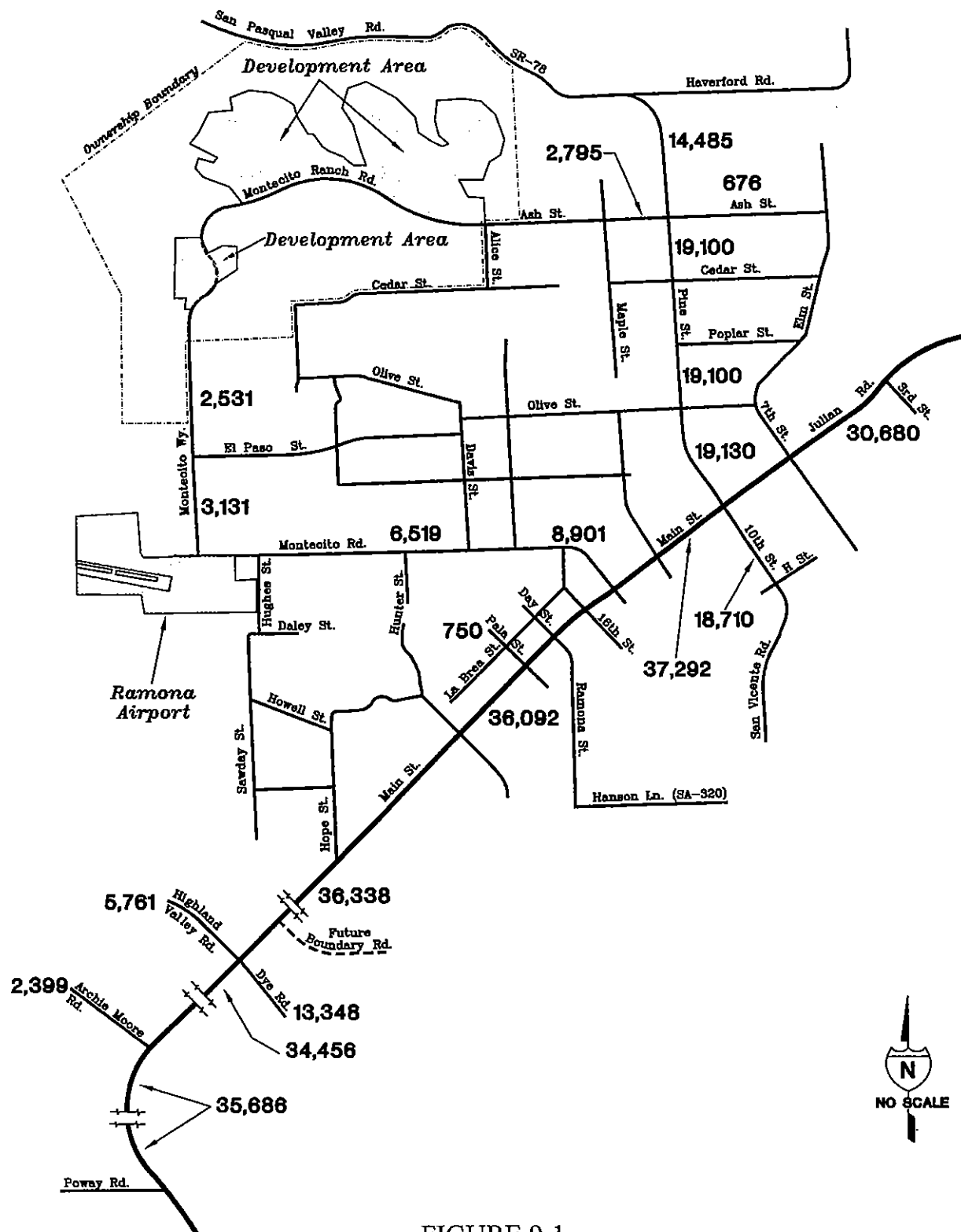


FIGURE 9-1
Existing + Other Projects + Project Average Daily Traffic

TABLE 9-1

**Existing + Other Projects + Project Street Segment Levels of Service
Before Project Mitigation**

Road	Segment	Class.	Cap.	Volume	V/C	LOS ¹
Pine Street (SR-78)	Haverford Rd. - Ash St.	RLC	16,200	14,485	0.89	E
	Ash St. - Olive St.	RLC	16,200	19,100	1.18	F
	Olive St. - Main St. (SR-67)	RLC	16,200	19,130	1.18	F
10th Street	Main St. (SR-67) - H Street	RLC	16,200	18,710	1.15	F
Main Street (SR-78)	7 th St. - 10 th St.	M	37,000	30,680	0.83	D
Main Street (SR-67)	10 th St. - Montecito Rd.	M	37,000	37,292	1.01	F
	Montecito Rd. - Hunter St.	M	37,000	36,092	0.98	E
	Hunter St. - Future Boundary Rd.	RLC	16,200	36,338	2.24	F
	Future Boundary Rd. - Highland Valley Rd.	RLC	16,200	36,338	2.24	F
	Highland Valley Rd. - Archie Moore Rd.	RLC	16,200	34,456	2.13	F
	Archie Moore Rd. - Poway Rd.	RLC	16,200	35,686	2.20	F
Montecito Wy.	Montecito Rd. - Montecito Ranch Rd.	RLC	16,200	3,131	0.19	B
	Montecito Rd. - Main St. (SR-67)	RLC	Does Not Exist			
Montecito Ranch Rd.	Project west access to Montecito Wy.	RLC	16,200	2,531	0.16	B
	Between Main Project Access Points	Special ²	15,000	2,060	0.14	B
Ash St.	East Project Access - Pine St. (SR-78)	RLC	16,200	2,795	0.17	B
	Pine St. (SR-78) - Elm St.	RLC	16,200	676	0.04	A
Montecito Rd.	Montecito Wy. - Davis St.	RLC	16,200	6,519	0.40	C
	Davis St. - Main St. (SR-67)	RLC	16,200	8,901	0.55	D

Legend:

Class. = Functional Classification
Cap. = Capacity
RLC = Rural Light Collector
M = Major
LOS = Level of Service
V/C = Volume-to-Capacity Ratio

Notes:

¹ = Based on County Public Roads Standards; see Table 3-1.

² = Two-lane divided, equivalent to City of San Diego collector with turn lane.

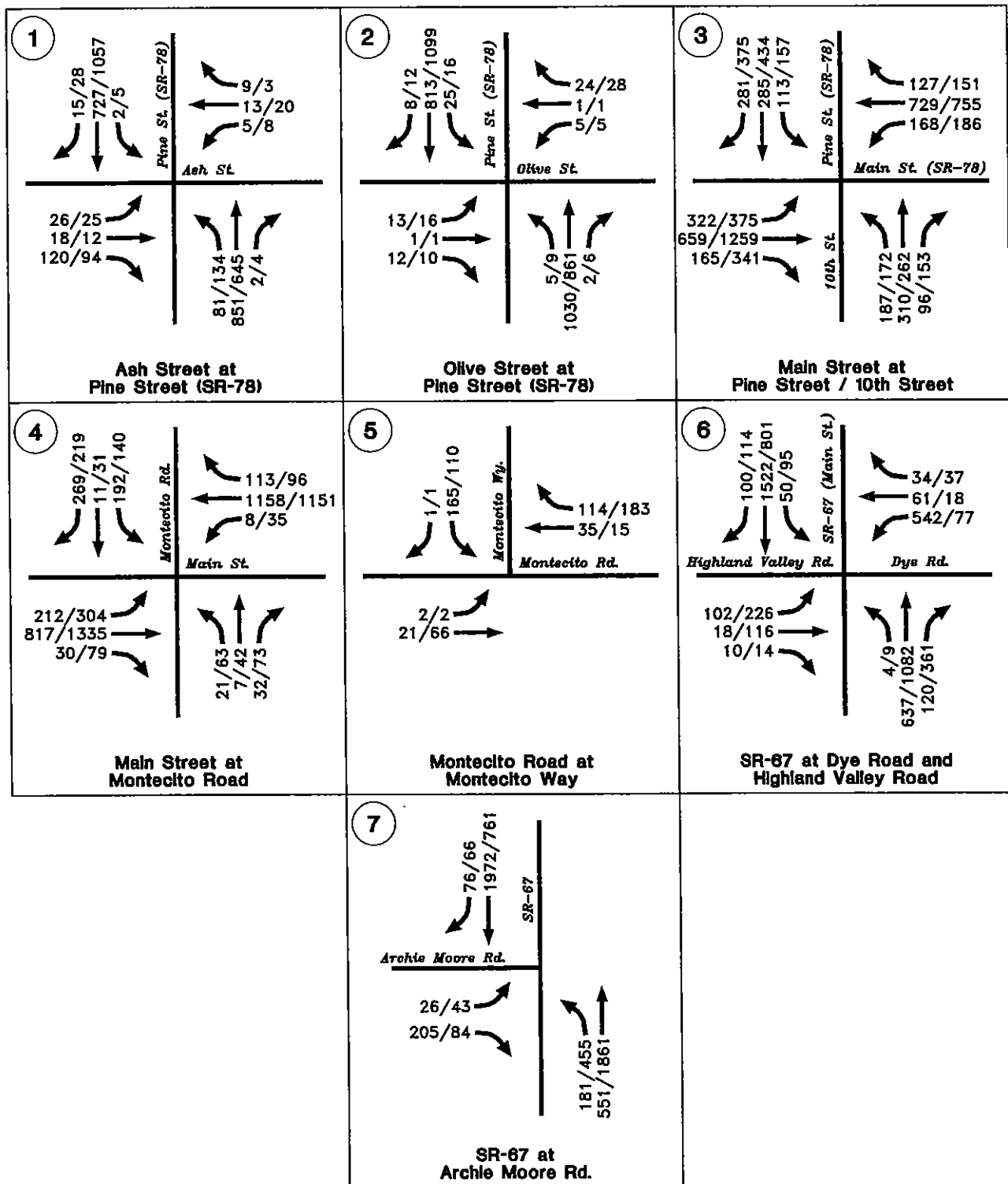


FIGURE 9-2

Existing + Other Projects + Project AM/PM Peak Hour Traffic

TABLE 9-2

**Existing + Other Projects + Project Intersection Levels of Service
Before Project Mitigation**

Number	Intersection	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1	Ash Street at Pine Street (SR-78) ¹	375.5	F	*	F
2	Pine Street (SR-78) at Olive Street ¹	145.2	F	268.9	F
3	Pine Street (SR-78) at Main Street (SR-67) ²	102.4	F	193.1	F
4	Main Street (SR-67) at Montecito Road ²	57.4	E	69.3	E
5	Montecito Way at Montecito Road ¹	10.6	B	10.6	B
6	Main Street (SR-67) at Highland Valley Road / Dye Road** ²	161.7	F	82.7	F
7	Main Street (SR-67) at Archie Moore Road ¹	*	F	*	F

Notes:

LOS = Level of Service

¹ = Unsignalized, worst approach delay

² = Signalized

* = Intersection delay is so high, it is beyond the model accuracy.

** = PHF is 0.95

10.0 YEAR 2030 WITHOUT PROJECT

As discussed in preceding sections of this report, Series 10 travel forecasts were completed by Source Point for the proposed project. A copy of portions of the travel forecast plot with project is included in **Appendix I**. To determine Year 2030 without project daily and peak hour volumes, project traffic was removed from total buildout traffic. A complete traffic model description is included in Section 3.7 of this report.

10.1 ROAD SEGMENTS

Figure 10-1 shows the Year 2030 without project average daily traffic volumes on road segments within the project study area.

Table 10-1 shows the study area road segments LOS for Year 2030 without project if the roadways are built to the function classification shown in the table. As shown, all analyzed segments of SR-78, SR-67 and 10th Street are projected to operate at an LOS that is below County standards, i.e., "E" or "F." The remaining roadway segments would operate at LOS "C" or better.

10.2 INTERSECTIONS

Peak hour intersection volumes at study area intersections under Year 2030 without project conditions are shown on **Figure 10-2**. These AM and PM peak turn volumes are generally based on turn volumes derived from the Series 10, Year 2030 traffic model. **Table 10-2** shows Year 2030 without project intersection levels of service. In some cases, where model turns did not represent reasonable volumes for analysis, i.e., the volumes may be lower than existing, the volumes were manually adjusted to more realistically represent likely Year 2030 conditions or to better match available peak intersection capacity. All analyzed

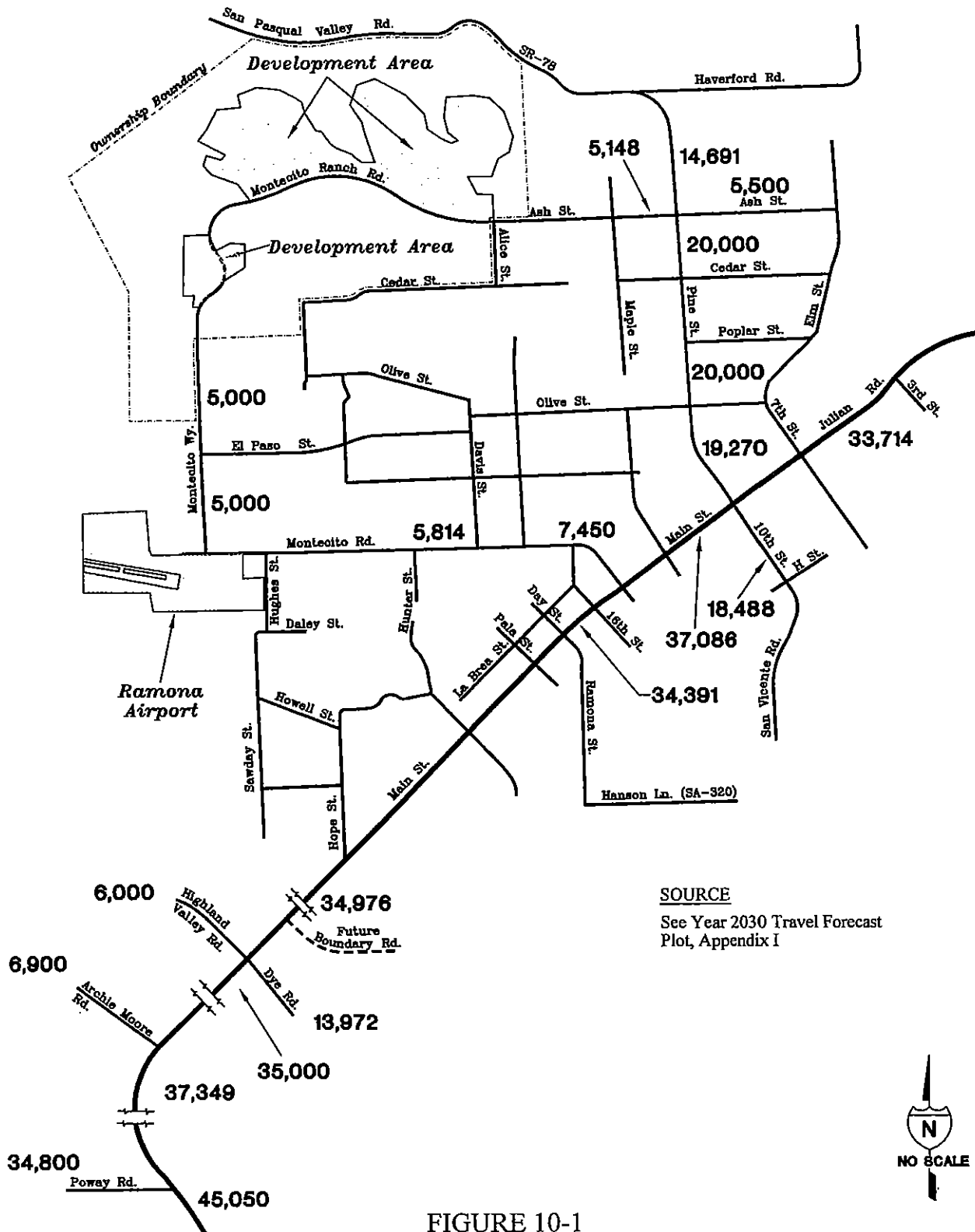


FIGURE 10-1
Year 2030 Without Project Average Daily Traffic

TABLE 10-1

Year 2030 Without Project Street Segment Levels of Service

Road	Segment	Class.	Cap.	Volume	V/C	LOS ¹
SR-78	Haverford Rd. - Ash St.	RLC	16,200	14,691	0.91	E
	Ash St. - Olive St.	RLC	16,200	20,000	1.23	F
	Olive St. - Main St. (SR-67)	RLC	16,200	19,270	1.19	F
10th Street	Main St. (SR-67) - H Street	RLC	16,200	18,488	1.14	F
Main Street (SR-78)	7 th St. - 10 th St.	M	37,000	33,714	0.91	E
Main Street (SR-67)	10 th St. - Montecito Rd.	M	37,000	37,086	1.00	F
	Montecito Rd. - Hunter St.	M	37,000	34,391	0.93	E
	Hunter St. - Future Boundary Rd.	RLC	16,200	34,976	2.16	F
	Future Boundary Rd. - Highland Valley	RLC	16,200	34,976	2.16	F
	Highland Valley Rd. - Archie Moore Rd.	RLC	16,200	35,000	2.16	F
	Archie Moore Rd. - Poway Rd.	RLC	16,200	37,349	2.31	F
Montecito Wy.	Montecito Ranch Rd. - Montecito Rd.	RLC	16,200	5,000	0.31	C
	Montecito Rd. - Main St. (SR-67)	RLC	16,200	0	0.00	--
Montecito Ranch Rd.	Project west access to Montecito Wy.	RLC	16,200	0	0.00	--
	Between Main Project Access Points	Special ²	15,000	0	0.00	--
Ash St.	East Project Access - Pine St. (SR-78)	RLC	16,200	5,148	0.32	C
	Pine St. (SR-78) - Elm St.	RLC	16,200	5,500	0.34	C
Montecito Rd.	Montecito Wy. - Davis St.	RLC	16,200	5,814	0.35	C
	Davis St. - Main St. (SR-67)	RLC	16,200	7,450	0.46	C

Legend:

Class. = Functional Classification
Cap. = Capacity
RLC = Rural Light Collector
M = Major
LOS = Level of Service
V/C = Volume-to-Capacity Ratio

Notes:

¹ = Based on County Public Roads Standards; see Table 3-1.
² = Two-lane divided, equivalent to City of San Diego collector with turn lane.

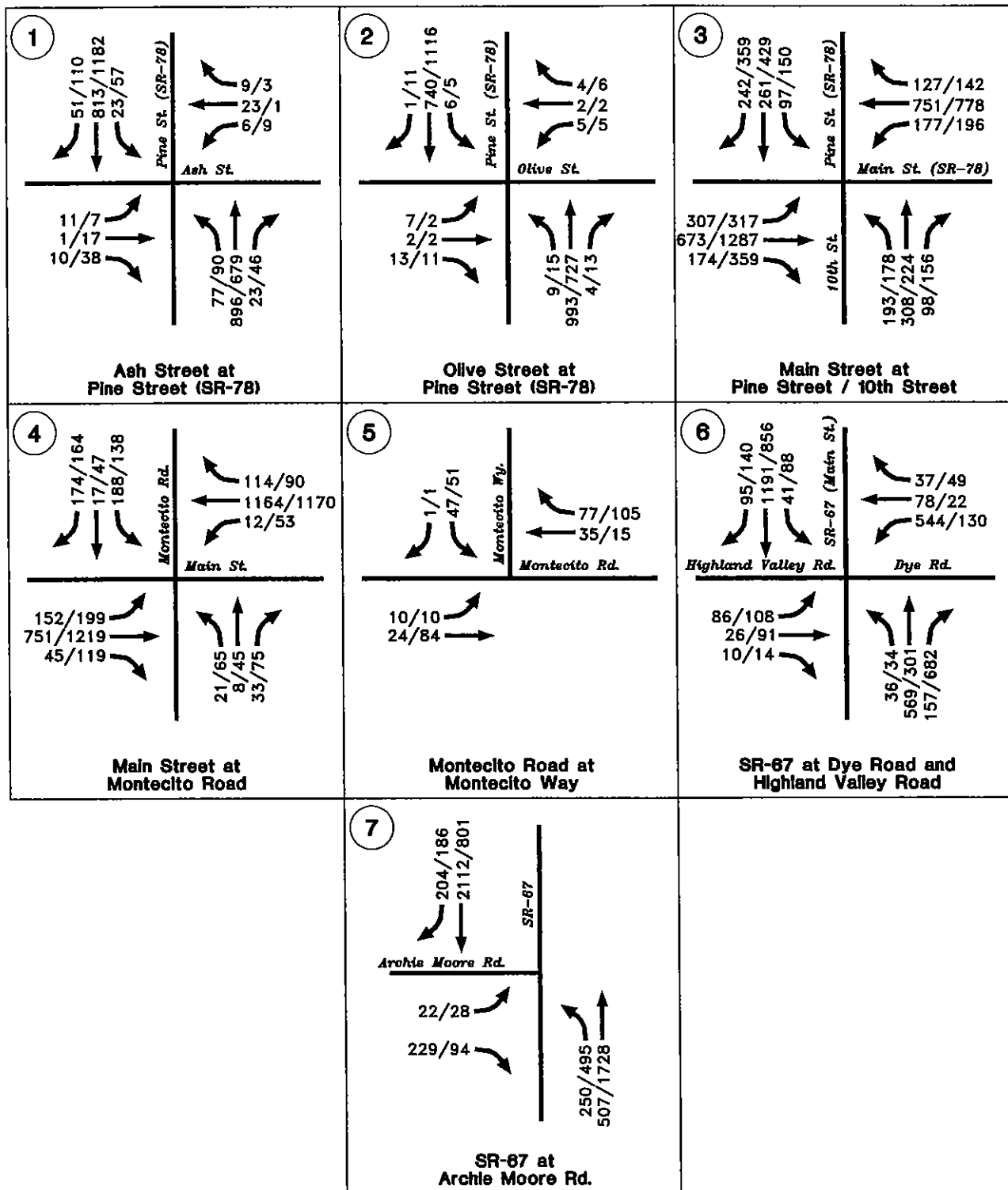


FIGURE 10-2
Year 2030 Without Project AM/PM Peak Hour Traffic

TABLE 10-2

Year 2030 Without Project Intersection Levels of Service

Number	Intersection	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1	Ash Street at Pine Street (SR-78) ¹	(3)	F	(3)	F
2	Pine Street (SR-78) at Olive Street ¹	72.6	F	82.5	F
3	Pine Street (SR-78) at Main Street (SR-67) ²	104.0	F	193.5	F
4	Main Street (SR-67) at Montecito Road ²	40.0	D	59.1	E
5	Montecito Way at Montecito Road ¹	9.7	A	10.1	B
6	Main Street (SR-67) at Highland Valley Road / Dye Road* ²	97.9**	F	43.4**	D
7	Main Street (SR-67) at Archie Moore Road ¹	(3)	F	(3)	F

Notes:

LOS = Level of Service

¹ = Unsignalized, worst approach delay

² = Signalized

(3) = Intersection delay is so high, it is beyond the model accuracy.

* = PHF is 0.95

** = Delay is less than near term at some locations due to lower volumes. The lower volumes are caused by the diversion of traffic due to construction of the southern bypass.

intersections would operate at LOS "E" or "F" at AM and/or PM peak hours, with the exception of Montecito Way/Montecito Road, which operates at LOS "B" or better.

It should be noted that the intersection levels of service shown in this table assume NO PROJECT MITIGATION or mitigation by others. This is because the project is not assumed to be built in this scenario. The next section describes the "with project" scenario and Chapter 12 discusses mitigation proposed for the project. **Appendix J** contains the Year 2030 without project HCS worksheets.

11.0 YEAR 2030 WITH PROJECT

As discussed in the preceding section of this report, Year 2030 with project segment and intersection volumes were determined using a Series 10 travel forecast. Since the forecast included project traffic, no further adjustments or refinements were necessary to establish daily and peak hour traffic for analysis.

11.1 ROAD SEGMENTS

Figure 11-1 shows the Year 2030 with project daily volumes and **Table 11-1** shows the road segment levels of service with the project. As shown in the table, all analyzed segments of SR-78 and SR-67 and 10th Street are projected to operate at a LOS that is below County standards, i.e., “E” or “F.”

11.2 INTERSECTIONS

Peak hour intersection volumes at study area intersections are shown on **Figure 11-2**. These AM and PM peak turn volumes are generally based on turn volumes derived from the Series 10, Year 2030 traffic model. In some cases, where model turns did not represent reasonable volumes for analysis, i.e., the volumes may be lower than existing, the volumes were manually adjusted to more realistically represent likely Year 2030 conditions or to better match available peak intersection capacity. **Table 11-2** summarizes the results of the peak hour intersection analysis using HCS +. All intersections would operate at LOS “E” or “F” during AM and/or PM peak hours, except for Montecito Way/Montecito Road.

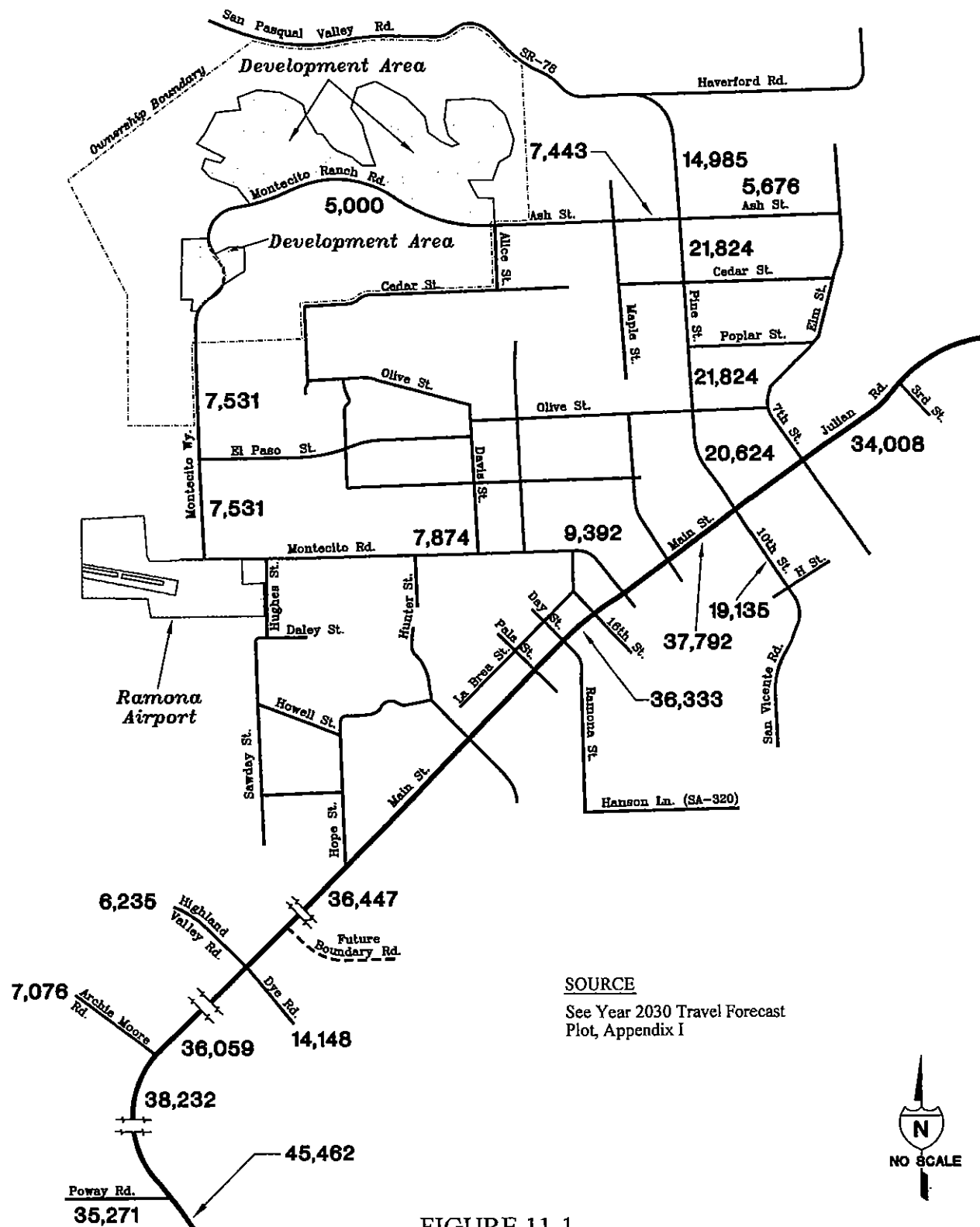


FIGURE 11-1
Year 2030 With Project Average Daily Traffic

TABLE 11-1

**Year 2030 With Project Street Segment Levels of Service
Before Project Mitigation**

Road	Segment	Class.	Cap.	Volume	V/C	LOS ¹
Pine Street (SR-78)	Haverford Rd. - Ash St.	RLC	16,200	14,985	0.93	E
	Ash St. - Olive St.	RLC	16,200	21,824	1.35	F
	Olive St. - Main St. (SR-67)	RLC	16,200	20,624	1.27	F
10th Street	Main St. (SR-67) - H Street	RLC	16,200	19,135	1.18	F
Main Street (SR-78)	7 th St. - 10 th St.	M	37,000	34,008	0.92	E
Main Street (SR-67)	10 th St. - Montecito Rd.	M	37,000	37,792	1.02	F
	Montecito Rd. - Hunter St.	M	37,000	36,333	0.98	E
	Hunter St. - Future Boundary Rd.	RLC	16,200	36,447	2.25	F
	Future Boundary Rd. - Highland Valley	RLC	16,200	36,447	2.25	F
	Highland Valley Rd. - Archie Moore Rd.	RLC	16,200	36,059	2.23	F
	Archie Moore Rd. - Poway Rd.	RLC	16,200	38,232	2.36	F
Montecito Wy.	Montecito Ranch Rd. - Montecito Rd.	RLC	16,200	7,531	0.46	D
	Montecito Rd. - Main St. (SR-67)	RLC	Does Not Exist			
Montecito Ranch Rd.	Project west access to Montecito Wy.	RLC	16,200	7,531	0.46	D
	Between Main Project Access Points	Special ²	15,000	5,000	0.33	B
Ash St.	East Project Access - Pine St. (SR-78)	RLC	16,200	7,443	0.46	D
	Pine St. (SR-78) - Elm St.	RLC	16,200	5,676	0.35	C
Montecito Rd.	Montecito Wy. - Davis St.	RLC	16,200	7,874	0.49	D
	Davis St. - Main St. (SR-67)	RLC	16,200	9,392	0.58	D

Legend:

Class. = Functional Classification
Cap. = Capacity
RLC = Rural Light Collector
M = Major
LOS = Level of Service
V/C = Volume-to-Capacity Ratio

Notes:

- ¹ = Based on County Public Roads Standards; see Table 3-1.
² = Two-lane divided, equivalent to City of San Diego collector with turn lane.

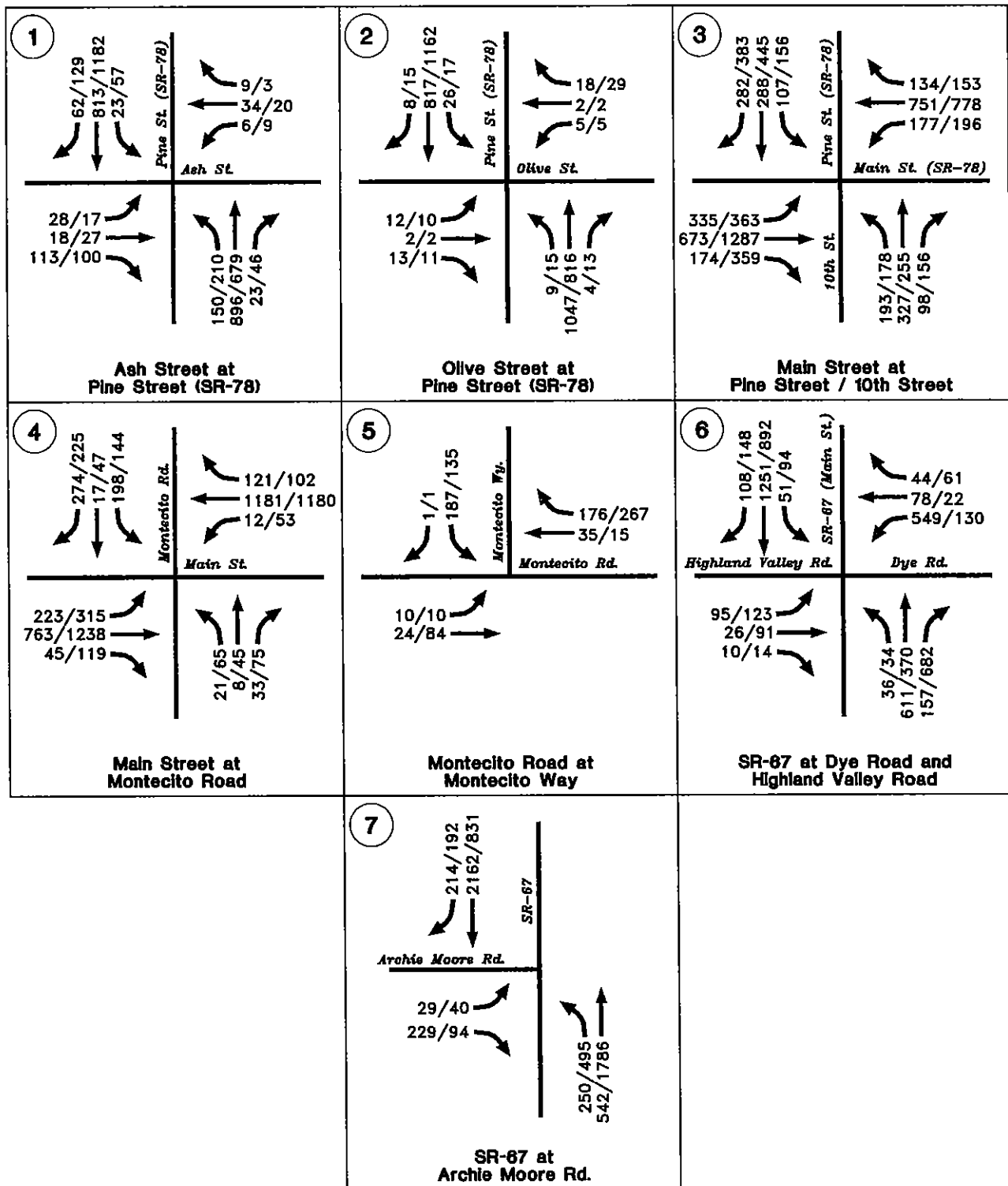


FIGURE 11-2
Year 2030 With Project AM/PM Peak Hour Traffic

TABLE 11-2

**Year 2030 With Project Intersection Levels of Service
Before Project Mitigation**

Number	Intersection	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1	Ash Street at Pine Street (SR-78) ¹	*	F	*	F
2	Pine Street (SR-78) at Olive Street ¹	144.3 ³	F	198.6 ³	F
3	Pine Street (SR-78) at Main Street (SR-67) ²	116.8	F	200.6	F
4	Main Street (SR-67) at Montecito Road ²	59.2	E	87.3	F
5	Montecito Way at Montecito Road ¹	11.5	B	11.9	B
6	Main Street (SR-67) at Highland Valley Road / Dye Road** ²	106.8 ³	F	50.0 ³	D
7	Main Street (SR-67) at Archie Moore Road ¹	*	F	*	F

Notes:

LOS = Level of Service

¹ = Unsignalized, worst approach delay

² = Signalized

* = Intersection delay is so high, it is beyond the model accuracy.

** = PHF is 0.95

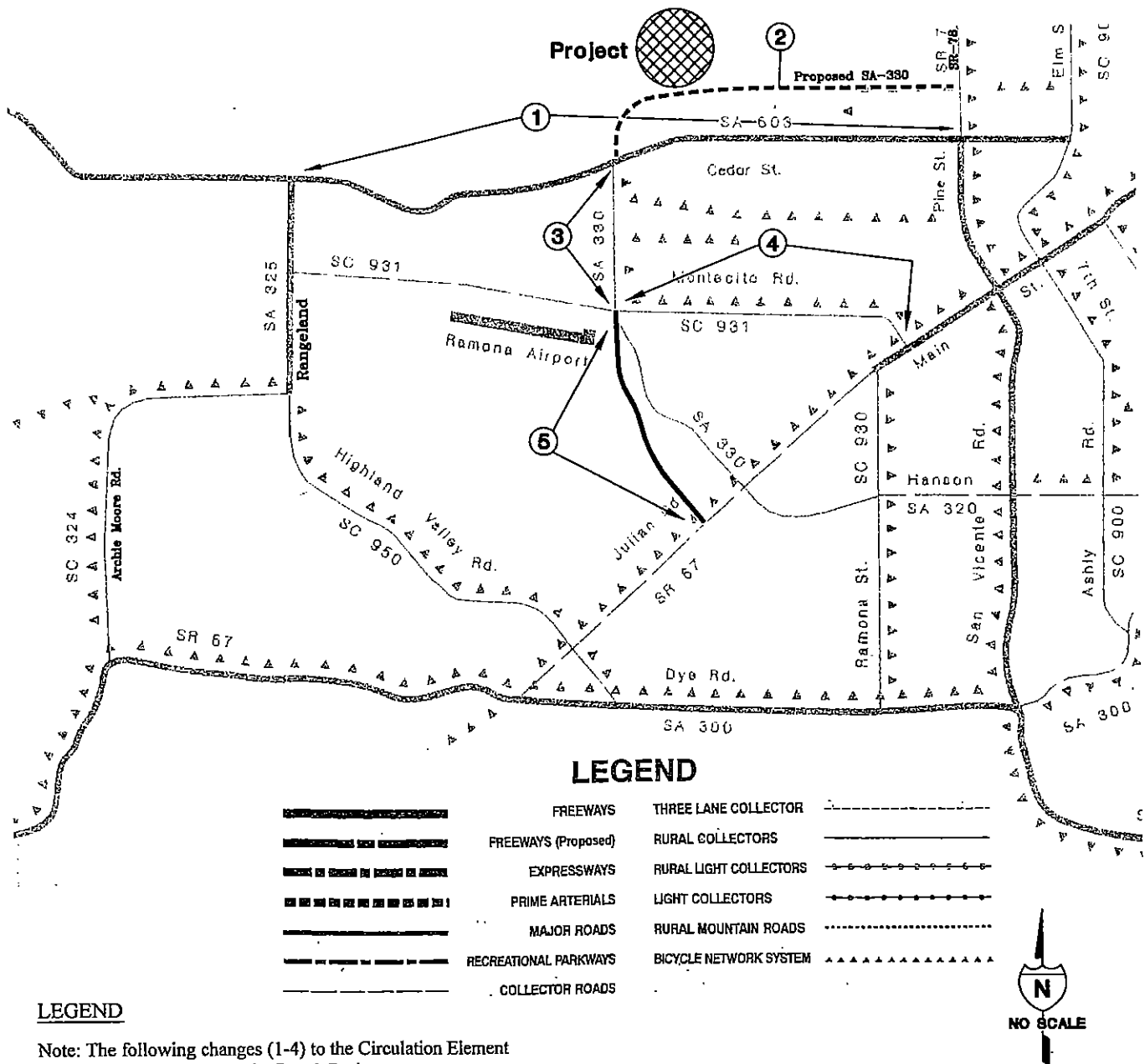
³ = Delay is less than Near Term with Project at this location due to lower volumes. The lower volumes and thus reduced delay are caused by the diversion of traffic due to construction of the southern bypass.

It should be noted that the intersection levels of service shown in this table assume NO PROJECT MITIGATION or mitigation by others. This is because project mitigation is not assumed to be built. The next sections describe the “with project” scenario and Chapter 12 discusses mitigation proposed for the project. **Appendix K** contains the buildout with project HCS worksheets.

11.3 PLAN TO PLAN COMPARISON

Figure 11-3 shows the proposed project site and the surrounding Ramona area on the present County General Plan Circulation Element (CE) map. From a CE perspective a new two-lane rural light collector loop is proposed by the project as an amendment to the circulation element because it provides needed access to the northern and southern parts of Ramona. The project has the potential to reduce both existing and future traffic within downtown Ramona by building 2 of the 3 segments of SA-330 which would then provide a bypass of downtown. See items 2 and 3 on **Figure 11-3**.

SA-330 from SR-78 to SR-67 would be classified as a rural light collector. The design speed for SA-330 would be 40 miles per hour, except between the eastern boundary of the project site and SR-78, where existing vertical design elements limit the speed to 35 miles per hour. A design exception will be required for Ash Street from east of the project boundary to SR-78 for design speed variation, removal of parking to provide bike lanes and removal of sidewalks and replacement with a multi-purpose trail. Design exceptions for Montecito Way (SA-330) include removal of parking to provide bike lanes, removal of sidewalks and replacement with a multi-purpose trail.



In addition to these changes to the CE, the project also recommends elimination of SA-603 between SR-78 and Rangeland Road. As discussed above key elements of the proposed project relate to the existing County CE that is shown on **Figure 11-3**. CE changes are proposed as a part of the project in addition to widening Montecito Road. As summarized on Figure 11-3, the proposed CE Amendments include:

1. Deletion of SA-603 from Pine Street (SR-78) to Rangeland Road.
2. Addition of SA-330 from Pine Street (SR-78) along Ash Street, through Montecito Ranch (Montecito Ranch Road) to the intersection of Montecito Way and Sonora as a rural light collector.
3. Relocate SA-330 from existing alignment to Montecito Way, from the intersection of Montecito Way and Sonora to Montecito Road*.
4. Reclassify Montecito Road from Montecito Way (SA-330) to Main Street (SR-67) to rural light collector standards.

*SA-330 South of Montecito Road is already proposed as a circulation element amendment as part of General Plan 2020. Although this portion of SA-330 does not run through Montecito Ranch and is not part of the project improvements, we are including it as part of Montecito Ranch's circulation amendment.

There are three land use plans, i.e., the proposed project, existing and proposed 2020 General Plan, which all propose 417 dwelling units for the project area. Since all three plans agree, there is no variation in traffic generation between the plans.

There are also three alternative circulation plans which were considered or used in this project impact analysis. The alternatives are:

1. Adopted General Plan CE
2. Proposed Project Changes to the CE
3. Staff Recommended General Plan 2020 Update

11.3.1 Adopted Circulation Element

The existing adopted CE with proposed amendments was discussed and is shown in **Figure 11-3**. There are four features of the adopted CE that are recommended for change by the project. These recommended changes are:

1. Deletion of SA-603 between Rangeland Road and SR-78.
2. Addition of SA-330 between Montecito Way and SR-78.
3. Reclassification of Montecito Road and Montecito Way to a rural light collector.
4. Relocation of SA-330 to the west to avoid impacts to the acres subdivision.

11.3.2 The Project Proposal

The Montecito Ranch project recommends a circulation element amendment to delete SA-603 and to build a portion of a new SA-330 rural light collector loop as proposed in the TIF program and as illustrated on **Figure 11-4**. The project proposes to build or improve to rural light collector standards three SA-330 segments as follows:

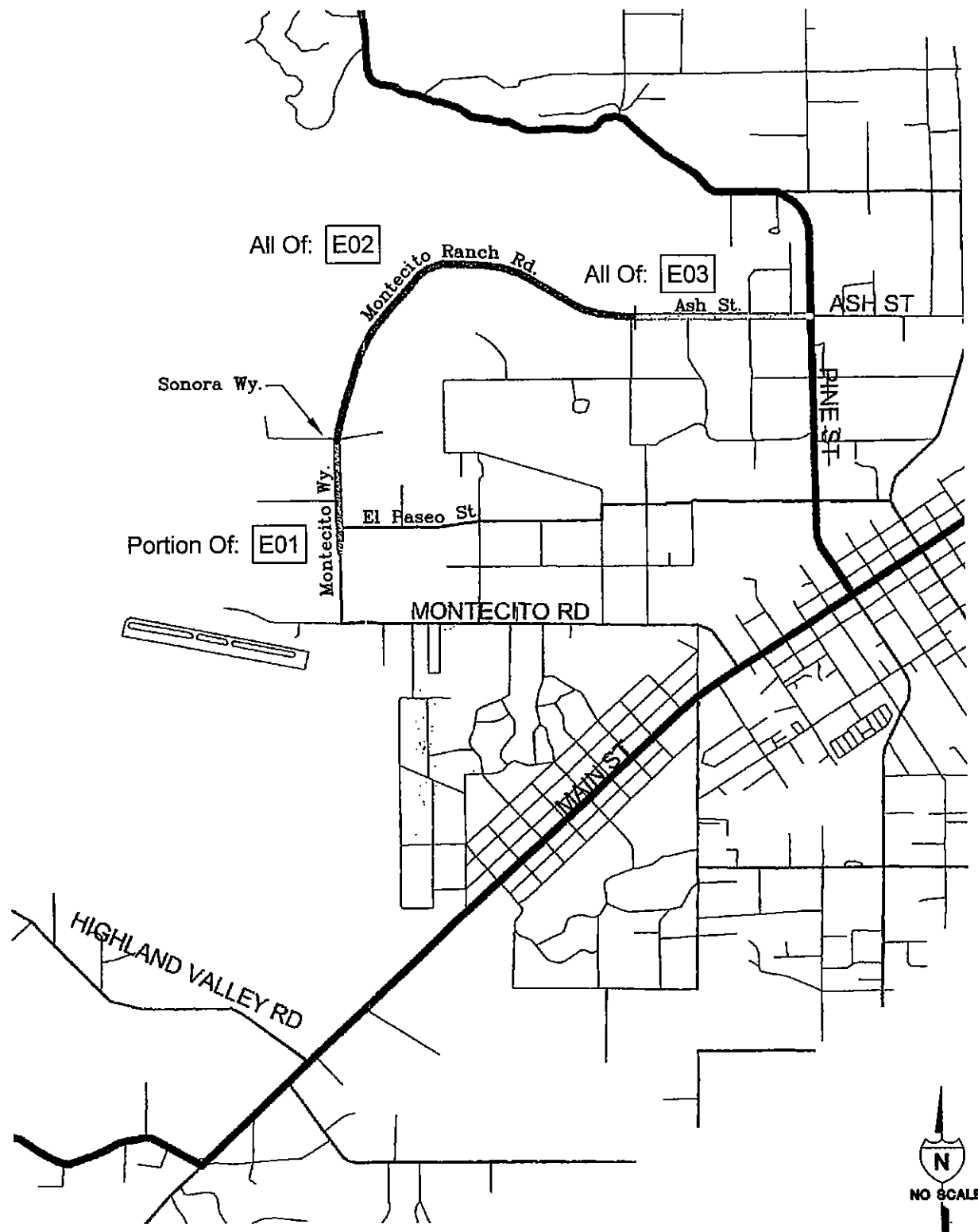


FIGURE 11-4
Project Improvements to SA-330

- Portion of: Segment (E01) - Montecito Way between Sonora Way and Montecito Road - BUILD
- All of: Segment (E02) - Montecito Ranch Road between Sonora Way and Ash Street - BUILD
- All of: Segment (E03) - Ash Street between Montecito Ranch Road and SR-78 - BUILD

These three segments are included in the County TIF program except that the TIF program includes Montecito Way south of El Paso Street in a location slightly east of existing Montecito Way. The project proposes to improve all of Montecito Way in its present location between El Paso Street and Montecito Road.

11.3.3 2020 Circulation Element Update - Staff Recommended Plan

The County recently completed the process of a comprehensive update to the adopted CE. The staff-recommended (but not approved) plan is shown in **Figure 11-5** and was recommended for preparation of an EIR by the Board of supervisors August 2, 2006. In the project area, staff recommends:

1. Deletion of SA-603 between Highland Valley Road and Montecito Way.
2. Deletion of SA-325 (Rangeland Road) between Highland Valley Road and SA-603.
3. Deletion of SC-931 between Rangeland Road and the airport.
4. Relocation of SA-330 along the old SA-603 alignment (Cedar Street) to Ash Street.
5. Relocation of SA-330 between Montecito Road and SR-67.
6. Connection of Boundary Road to SA-330 at SR-67.

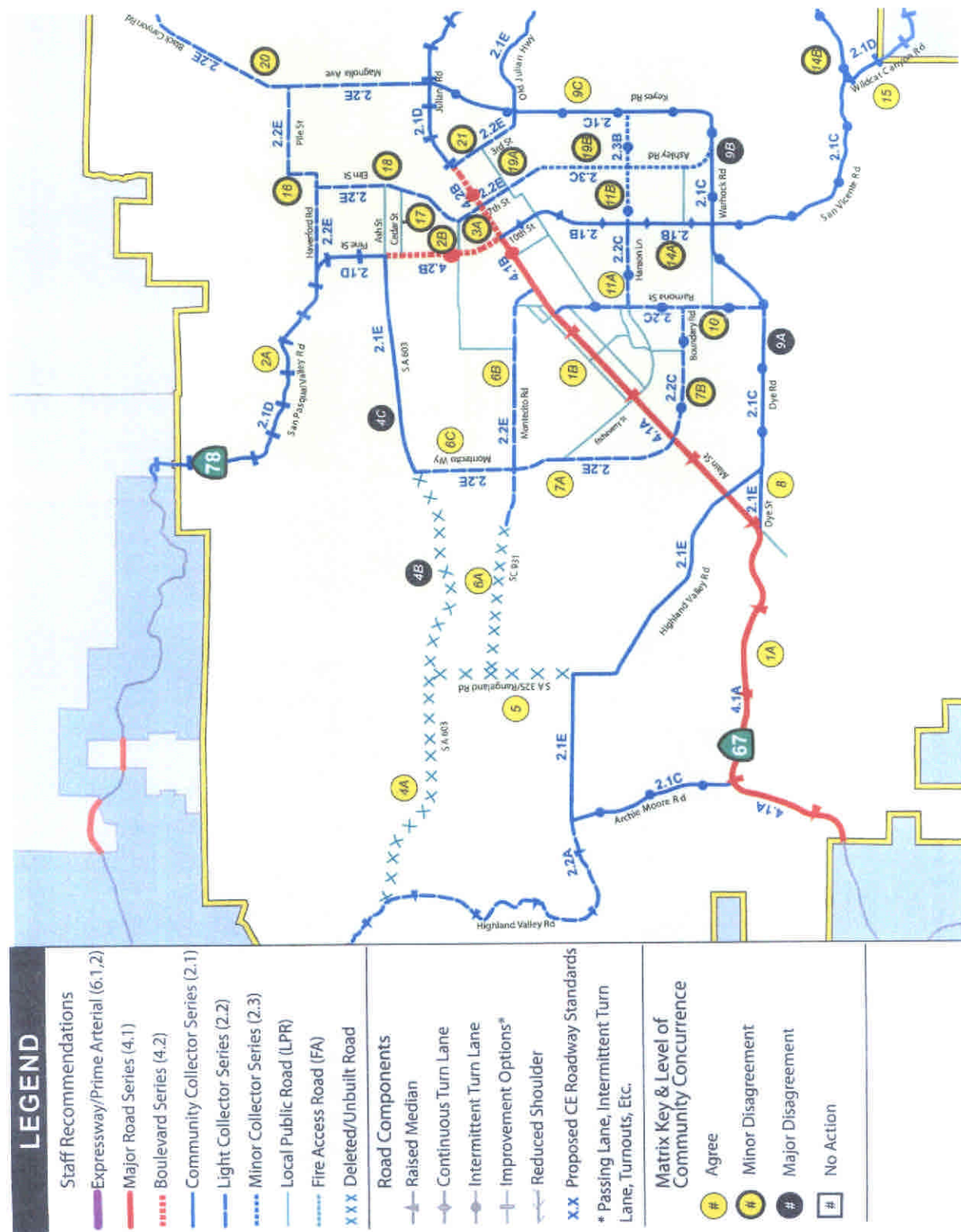


FIGURE 11-5

Year 2020 Staff Recommended Circulation Element Update

Table 11-3 compares each of the three circulation plans. The existing CE and proposed 2020 CE are shown in **Figures 11-3** and **11-5** respectively. Differences are discussed below. SA-603 is divided into three segments. The County recommends deletion of two segments and realignment of the easterly segment to become SA-330. **Figure 11-6** shows all of the proposed changes to the Circulation Element by the project.

With regard to SA-325 (Rangeland Road,) the project will support deletion, which is consistent with the staff 2020 recommendation. For SC-931, the staff 2020 recommendation is to delete portions. The project recommendation is no change west of Montecito Way. SC-931 east of Montecito Way is proposed to be reclassified as a Rural Light Collector by the project. No change is proposed by 2020 staff.

For SA-330, the staff and project recommendations are the same north of Montecito Road. The County recommends connection of Boundary Road to SA-330 and relocation of SA-330 to the west on the segment between Montecito Road and SR-67.

A comparison of traffic volumes for the 2030 with project and 2020 plans was also completed. **Table 11-4** summarizes the results of this effort. Existing land use designations for the adopted General Plan are shown in **Figures 11-7** and **11-8**. As shown in **Table 11-4**, the 2030 with project volumes are generally higher than the 2020 volumes. This is most likely due to the inclusion of numerous “other projects” in the project forecast. The required road facilities would be the same for both Project and 2020 forecast results.

TABLE 11-3
Circulation Element Plan Comparison

Road	Segment	Adopted Circulation Element (Figure 11-3)	Year 2020 Staff preference (Figure 11-5)	Project Proposed Circulation Element (Figure 11-6)
SA-603	Highland Valley Rd. to Rangeland (SA-325)	Major	Delete	No Recommendation
SA-603	Rangeland (SA-325) to Montecito Wy.	Major	Delete	Delete
SA-603	Montecito Wy. to Pine St. (SR-78)	Major	Re-designate SA-330	Re-designate SA-330
SA-325	Proposed SA-330 to Highland Valley Rd.	Major	Delete	No Recommendation
SA-330	Main Street (SR-67) to Montecito Rd.	Rural Collector	Re-locate, re-classify as Light Collector	Relocate, classify as Rural Light Collector
SA-330	Montecito Rd. to SA-603	Rural Collector	Re-classify as Light Collector	Re-classify as Rural Light Collector
SA-330	SA-603 to Pine Street (SR-78)	No Road	Re-classify Old SA-603 as a Light Collector	Re-classify SA-603 as a Rural Light Collector
Boundary Road	Main Street (SR-67) to Ramona Street	Local	Add Light Collector	No Recommendation
Montecito Road	Montecito Way to Main Street	Rural Collector	Re-classify as Rural Light Collector	Re-classify as Rural Light Collector

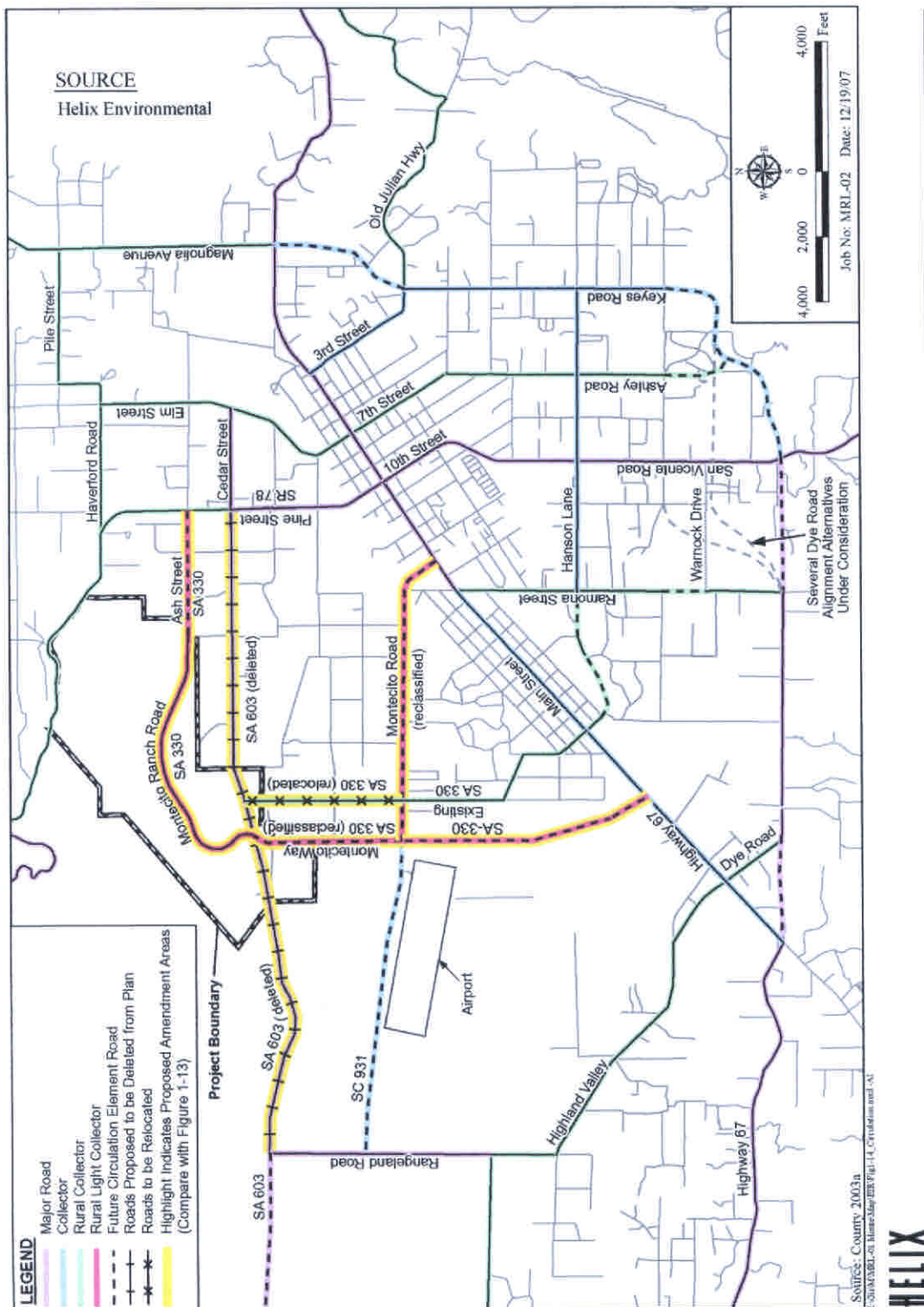
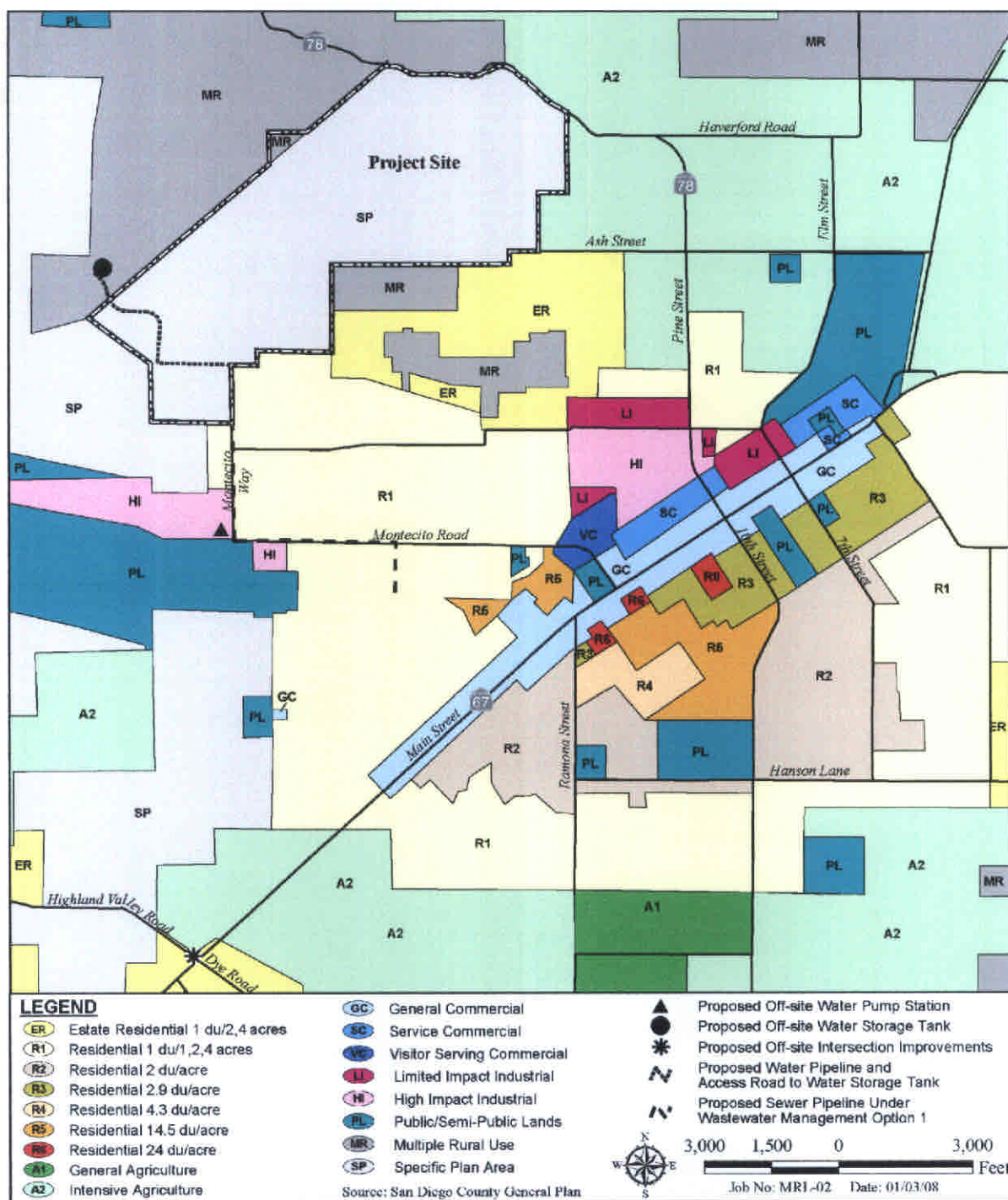


FIGURE 11-6
Proposed Amendments to Circulation Element Plan

TABLE 11-4

2030 With Project Volumes Compared to County 2020 Forecast Volumes

Road	Segment	2030 With Project	2020
Pine (SR-78)	Ash Street to Haverford Road	14,985	10,500
Pine (SR-78)	Ash Street to Olive	21,824	14,500
Proposed SA-330	Pine Street (SR-78) to Montecito Way	5,000	2,940
Proposed SA-330	Montecito Way to Montecito Road	7,531	4,200
Main Street (SR-67)	Pine Street (SR-78) to Montecito Road	37,792	31,000
Main Street (SR-67)	Montecito Road to Proposed SA-330	36,447	29,000
Main Street (SR-67)	Proposed SA-330 to Dye Road	38,471	33,300



HELIX

SOURCE

Helix Environmental

FIGURE 11-7
Existing General Plan Land Use Designations

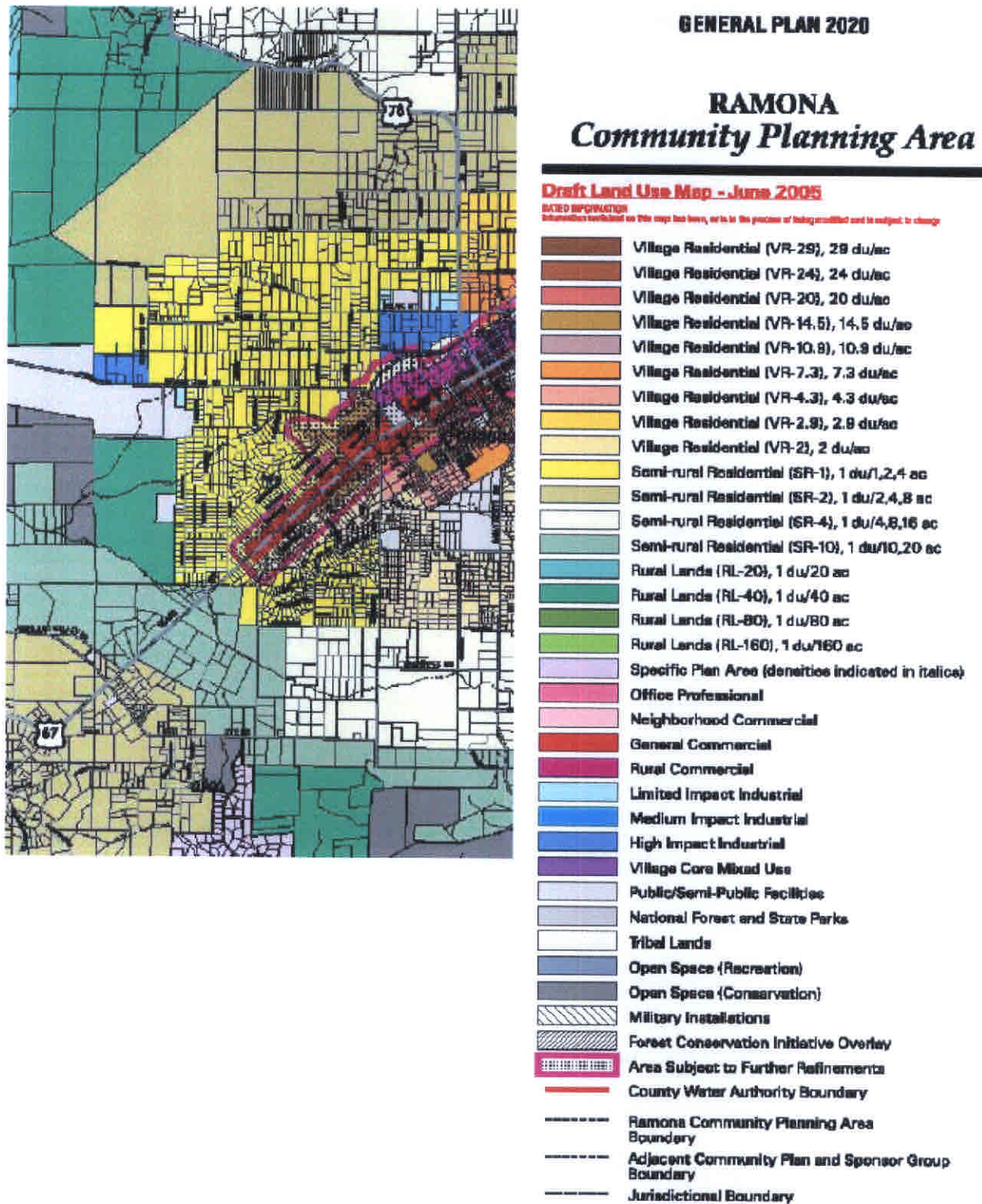


FIGURE 11-8
Draft Land Use Map - June 2005

11.4 PROJECT PHASING

This phasing analysis is based on roadway traffic capacities and should not be compared to project units (Units 1 and 2) which were developed for tentative mapping purposes only.

This phasing analysis was completed for the condition when Montecito Road and Ash Street provide project access, see **Figures 11-9A** or phase 1 and **11-9B** for phase 2. For this condition, the project site would be connected to SR-78 via Ash Street, project impacted intersections are mitigated. Montecito Way is improved and Montecito Ranch Road is built. Also Montecito Road from Montecito Way to SR-67 would be used along with intersection improvements at Montecito Road and SR-67.

In the existing plus project condition, the intersection of SR-67 and Montecito Road was shown to have unused capacity, i.e., during the PM peak it will operate at an LOS "D" and during the AM peak an LOS "C." To determine how much project traffic could be added to the intersection without creating a LOS that is below County standards, the peak project traffic from **Figure 5-3** was ratioed and the HCS 2000 capacity analysis was re-run.

We found that the PM peak along with turn movements at the intersection of SR-67 and Montecito Road were the most limiting factors. The analysis results showed that 280 dwelling units could be developed and occupied before the capacity at intersection #4 is exceeded resulting in levels of service below County standards. **Table 11-5** summarizes the improvements needed to accommodate the initial development phase of 280 units. The table also summarizes the traffic improvements for the two development phases (i.e., prior to occupancy of the first home to 280 homes, and prior to occupancy of 281 homes to project buildout of 417 homes).

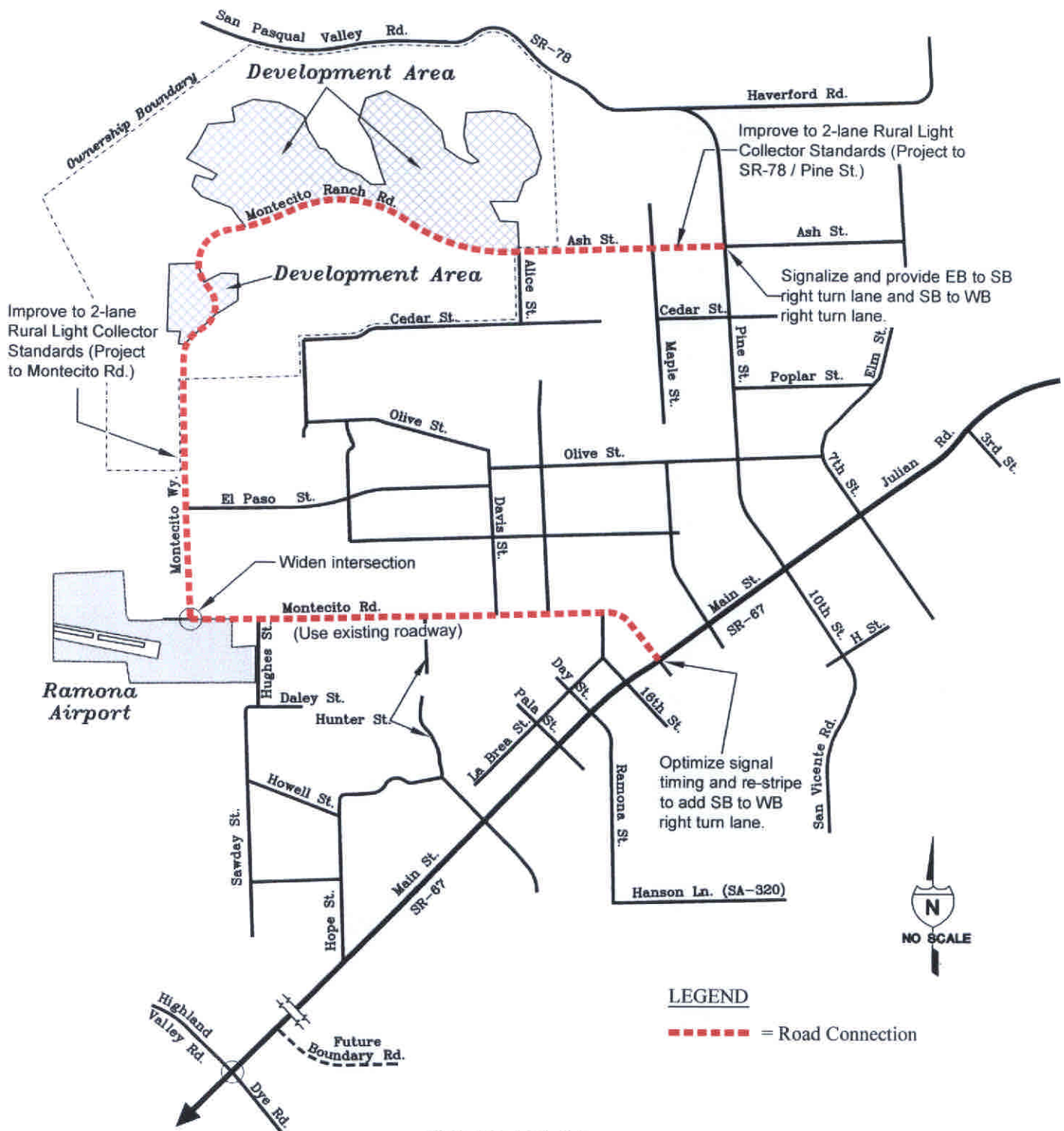


FIGURE 11-9A
Phase One Plan - Proposed Roadway / Intersection Improvements
For Up To 280 Units

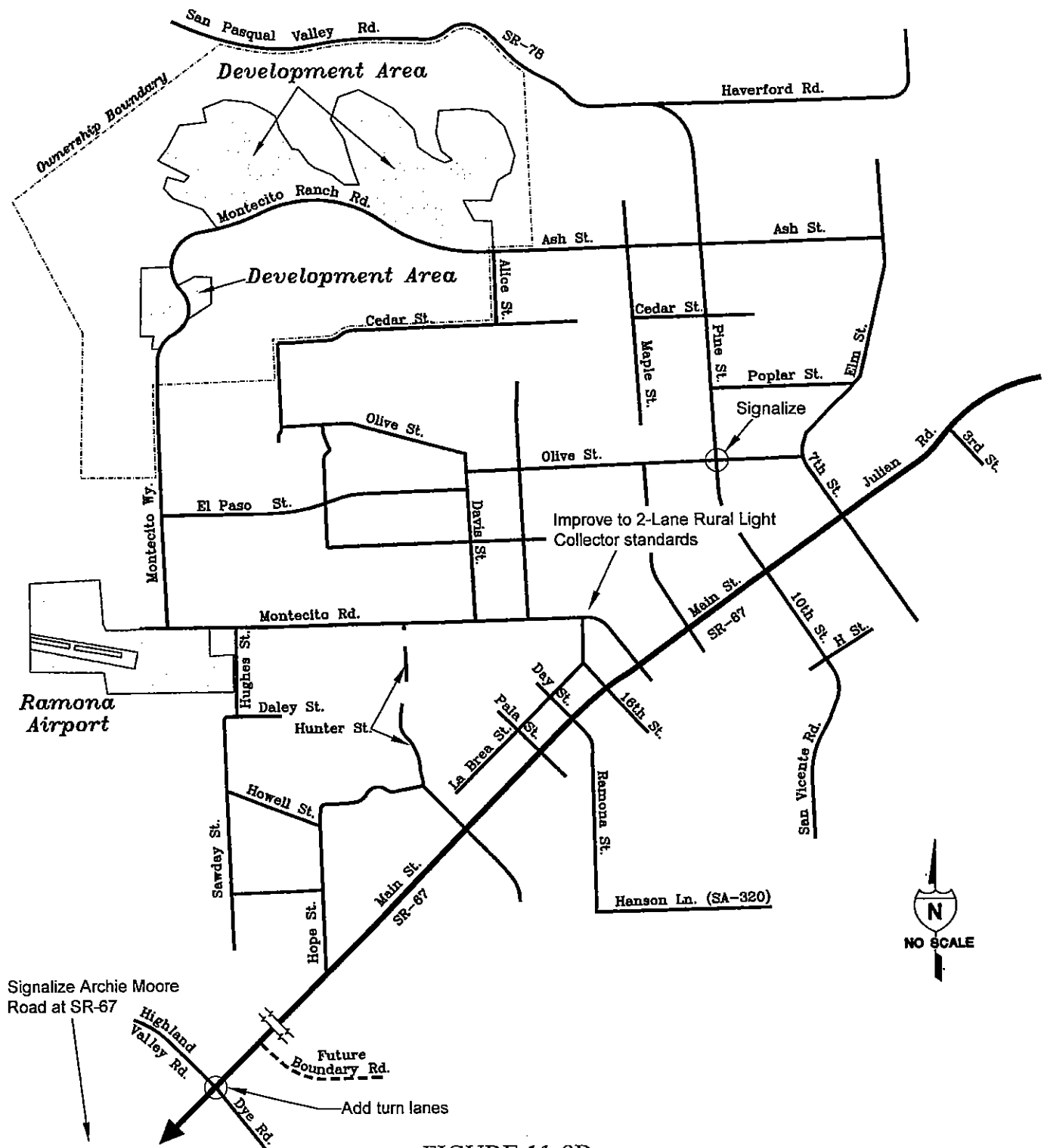


FIGURE 11-9B

Phase Two Plan - Proposed Roadway / Intersection Improvements For 281 to 417 Units

TABLE 11-5
Phased Traffic Improvements

Phase	Land Use Threshold	Mitigation Required		Improvement
		Segment/Intersection	Limits	
1	Prior to occupancy of first Home to 280 Homes	Montecito Way	Montecito Road to Montecito Ranch Rd.	Widen existing 2 lanes to meet 2 lane Rural Light Collector standards
1		Montecito Ranch Rd	Montecito Way to Ash Street	Construct new special design 2 lane Divided Rural Light Collector ; No signalization
1		Ash Street	Montecito Ranch Rd. to Pine St.	Widen existing 2 lanes to meet 2 lane Rural Light Collector standards
1		Ash Street at Pine Street	- Intersection	Signalize and construct eastbound to southbound right turn lane. Also provide a southbound to westbound right turn lane (Community Improvement*)
1		Main Street at Montecito Rd.	- Intersection	Restripe, widen, and modify signal to provide a southbound to westbound right turn lane.
1		Montecito Way at Montecito Rd.	- Intersection	Widen to provide left turn lanes on all approaches; no signalization
1		Pine Street at Main Street	- Intersection	Widen, restripe, and modify signal to provide a south to westbound right turn lane.
2	Prior to occupancy of the 281st Home to project build out of 417 homes.	Montecito Road	Montecito Way to SR-67	Improve the existing 2 lane road to 2 lane rural light collector standards
2		Pine at Olive	- Intersection	Provide new traffic signal if not previously signalized by Caltrans.
2		Highland Valley Road at SR-67	- Intersection	Provide one additional north to westbound left turn lane.
2		Archie Moore at SR-67	- Intersection	Signalize existing intersection.

Note:

* See Intersection 1, page 12-13 for further detail

For the phased development, 280 homes translates to 235 PM peak in and 101 PM peak out trips. This traffic splits 40% to the east and 60% to the west. Therefore, the table below summarizes the phased peak traffic impacts to SR-78 and SR-67.

Phased PM Peak Traffic Impacts

Corridor	%	In	Out
SR-78 (Pine Street)	40%	94	41
SR-67 (Main Street)	60%	141	60
TOTAL		235	101

As shown in the table, along the SR-78 corridor, if the peak traffic were spread uniformly over the peak one hour, about 1 ½ cars inbound and less than 1 car outbound per minute would impact SR-78.

For the SR-67 corridor, slightly more than 2 cars per minute inbound and about 1 car per minute outbound would impact the corridor. These impacts would not likely be perceptible to most drivers.

12.0 CONCLUSIONS AND RECOMMENDATIONS

In this section of the report, results from the analysis are summarized for each scenario and the significance of any project impacts are identified. Mitigation or overriding findings are then proposed.

12.1 STREET SEGMENTS

12.1.1 Existing

Table 12-1 summarizes the existing street segment levels of service. As shown in the table, all existing segments operate at a level of service “D” or better except portions of SR-67 between Hunter and Poway Road which operate at a level of service “F”.

12.1.2 Existing Plus Project

Table 12-1 also shows the existing street segment level of service when project traffic is added to existing traffic. This analysis represents a measure of “direct project” impacts. As shown in the table, six street segments are significantly impacted by the addition of project traffic. These segments include SR-78 between Ash Street and SR-67, and SR-67 between Hunter Street and Poway Road. These impacts are not proposed to be fully mitigated by the project. Since most roadway corridors fail at intersections, the project has elected to focus on intersection improvements to mitigate project impacts. Refer to Section 12.3 for proposed mitigation measures.

TABLE 12-1
Existing & Existing + Project Street Segment Comparison

Street	Segment	Existing		Existing + Project		Δv	Significant?
		ADT	LOS	ADT	LOS		
Pine Street (SR-78)	Haverford Rd. - Ash St.	9,700	D	9,994	D	N/A	N
	Ash St. - Olive St.	10,200	D	12,024	E	1,824	Y
	Olive St. - Main St. (SR-67)	10,700	D	12,054	E	1,354	Y
10 th Street	Main St. (SR-67) - H Street	7,000	C	7,647	D	N/A	N
	7 th St. - 10 th St.	23,300	B	23,594	B	N/A	N
Main Street (SR-78)	10 th St. - Montecito Rd.	29,500	C	30,206	D	N/A	N
	Montecito Rd. - Hunter St.	27,300	C	29,006	C	N/A	N
	Hunter St. - Boundary Rd.	27,000	F	28,471	F	1,471	Y
	Boundary Rd. - Highland Valley Rd.	27,000	F	28,471	F	1,471	Y
	Highland Valley Rd. - Archie Moore Rd.	24,000	F	25,059	F	1,059	Y
	Archie Moore Rd. - Poway Rd.	25,000	F	25,883	F	883	Y
Montecito Wy.	Montecito Ranch Rd. - Montecito Rd.	600	A	3,131	B	N/A	N
	Montecito Rd. - Main St. (SR-67)	---	---	2,472	B	N/A	N
Montecito Ranch Rd.	Project west access to Montecito Wy.	---	---	3,131	B	N/A	N
	Between Main Project Access Points	---	---	2,060	B	N/A	N
Ash St.	East Project Access - Pine St. (SR-78)	500	A	2,795	B	N/A	N
	Pine St. (SR-78) - Elm St.	500	A	676	A	N/A	N
Montecito Rd.	Montecito Wy. - Davis St.	3,500	B	5,560	C	N/A	N
	Davis St. - Main St. (SR-67)	6,000	C	7,942	D	N/A	N

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Note: Δv = Change in volume between Existing and Existing + Project
LOS = Level of Service

12.1.3 Existing Plus Other Projects

Table 12-2 shows the street segment levels of service expected when “other” project traffic is added to existing traffic (i.e., Near-Term Conditions). As shown, levels of service which are below County standards are expected to occur on SR-78/10th Street from Haverford Road to H Street and SR-67 from SR-78 to Poway Road, even if the Montecito Ranch Project is not built.

12.1.4 Existing Plus Other Projects Plus Project

Table 12-2 also shows expected conditions when project traffic is added. The project has significant impacts on SR-78/10th Street from Haverford Road to H Street and SR-67 from Pine Street to Poway Road. These impacts are not proposed to be fully mitigated by the project. Since most roadway corridors fail at intersections, the project has elected to focus on intersection improvements to mitigate project impacts. Refer to Section 12.3 for proposed mitigation measures.

12.1.5 Year 2030 and Year 2030 Plus Project

Table 12-3 summarizes the Year 2030 street segment levels of service with and without the project. As shown in the table, in 2030, several street segments would operate at less than acceptable levels of service. The segments are on SR-78 between Haverford Road and SR-67, 10th Street between SR-67 and H Street, and SR-67 from 10th to Poway Road. Cumulative impacts that ultimately will require widening of road segments are to be provided through the County’s TIF program (see **Appendix L**). The project will also pay its fees for traffic impacts.

TABLE 12-2
Existing + Other Projects & Existing + Other Projects + Project Street Segment Comparison

Street	Segment	Existing + Other Project		Existing + Other Projects + Project		Δv	Significant?
		ADT	LOS	ADT	LOS		
Pine Street (SR-78)	Haverford Rd. - Ash St.	14,191	E	14,485	E	294	Y
	Ash St. - Olive St.	17,276	F	19,100	F	1,824	Y
	Olive St. - Main St. (SR-67)	17,776	F	19,130	F	1,354	Y
10 th Street	Main St. (SR-67) - H Street	18,063	F	18,710	F	647	Y
Main Street (SR-78)	7 th St. - 10 th St.	30,386	D	30,680	D	N/A	N
Main Street (SR-67)	10 th St. - Montecito Rd.	36,586	E	37,292	F	706	Y
	Montecito Rd. - Hunter St.	34,386	E	36,092	E	1,706	Y
	Hunter St. - Boundary Rd.	34,867	F	36,338	F	1,471	Y
	Boundary Rd. - Highland Valley Rd.	34,867	F	36,338	F	1,471	Y
	Highland Valley Rd. - Archie Moore Rd.	33,397	F	34,456	F	1,059	Y
	Archie Moore Rd. - Poway Rd.	34,803	F	35,686	F	883	Y
Montecito Wy.	Montecito Ranch Rd. - Montecito Rd.	600	A	3,131	B	N/A	N
	Montecito Rd. - Main St. (SR-67)	---	---	2,472	B	N/A	N
Montecito Ranch Rd.	Project west access to Montecito Wy.	---	---	2,531	B	N/A	N
	Between Main Project Access Points	---	---	2,060	B	N/A	N
Ash St.	East Project Access - Pine St. (SR-78)	500	A	2,795	B	N/A	N
	Pine St. (SR-78) - Elm St.	500	A	676	A	N/A	N
Montecito Rd.	Montecito Wy. - Davis St.	4,459	B	6,519	C	N/A	N
	Davis St. - Main St. (SR-67)	6,959	C	8,901	D	N/A	N

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Note: Δv = Change in volume between Existing + Other Project and Existing + Other Project + Project
LOS = Level of Service

TABLE 12-3
Year 2030 & Year 2030 + Project Street Segment Comparison

Street	Segment	Year 2030		Year 2030 + Project		Significant?
		ADT	LOS	ADT	LOS	
Pine Street (SR-78)	Haverford Rd. - Ash St.	14,691	E	14,985	E	Y
	Ash St. - Olive St.	20,000	F	21,824	F	Y
	Olive St. - Main St. (SR-67)	19,270	F	20,624	F	Y
10 th Street	Main St. (SR-67) - H Street	18,488	F	19,135	F	Y
	7 th St. - 10 th St.	33,714	E	34,008	E	Y
Main Street (SR-78)	10 th St. - Montecito Rd.	37,086	F	37,792	F	Y
Main Street (SR-67)	Montecito Rd. - Hunter St.	34,391	E	36,333	E	Y
	Hunter St. - Boundary Rd.	34,976	F	36,447	F	Y
	Boundary Rd. - Highland Valley Rd.	37,000	F	38,471	F	Y
	Highland Valley Rd. - Archie Moore Rd.	35,000	F	36,059	F	Y
	Archie Moore Rd. - Poway Rd.	37,349	F	38,232	F	Y
Montecito Wy.	Montecito Ranch Rd. - Montecito Rd.	5,000	C	7,531	D	N
	Montecito Rd. - Main St. (SR-67)	3,949	B	6,421	C	N
Montecito Ranch Rd.	Project west access to Montecito Wy.	---	---	7,531	C/D*	N
	Between Main Project Access Points	---	---	5,000	B	N
Ash St.	East Project Access - Pine St. (SR-78)	5,148	C	7,443	D	N
	Pine St. (SR-78) - Elm St.	5,500	C	5,676	C	N
Montecito Rd.	Montecito Wy. - Davis St.	5,814	C	7,874	D	N
	Davis St. - Main St. (SR-67)	7,450	C	9,392	D	N

5703-TAB12-3L.wpd

Note: Δv = Change in volume between Year 2030 and Year 2030 + Project

LOS = Level of Service

* Public Facilities element Policy 1.1 permits onsite peak hour road segment analysis. An analysis for this onsite roadway was completed and the result shows that the segment will operate at a level of service C. See **Appendix N** for peak hour analysis worksheets.

12.2 INTERSECTIONS

12.2.1 Existing

Table 12-4 shows the AM and PM peak intersection levels of service for the existing conditions. These levels of service are without the project and without any mitigation. As shown in the table, two locations operates unacceptably, SR-67 at Archie Moore in the AM peak, and SR-78 at Main Street in the PM peak.

12.2.2 Existing Plus Project - Direct Project Impacts

Table 12-4 also shows the with project conditions. Again, no mitigation is assumed. Mitigation to be provided by the project to alleviate project or existing impacts are discussed in a subsequent section of this report.

As shown in the table, project impacts are significant at six (6) intersections during either or both the AM or PM peak hour. The project impacted intersections are:

Location	Mitigation Required
Ash Street at SR-78	YES
SR-78 at Olive Street	YES
SR-78 at Main Street	YES
SR-67 at Montecito Road	YES
Archie Moore at SR-67	YES
SR-67 at Highland Valley Road/Dye Road	YES

TABLE 12-4
Existing and Existing + Project Intersection Summary

	Intersection	Existing						Existing + Project								
		AM Peak		PM Peak		AM Peak		V	Vv	S	PM Peak			V	Vv	S
		D	LOS	D	LOS	D	LOS				D	LOS				
1	Ash Street at Pine Street* (SR-78) ¹	16.8	C	22.2	C	35.6	E	18.8	103	Y	65.8	F	43.6	120	Y	
2	Pine Street (SR-78) at Olive Street* ¹	16.7	C	19.3	C	31.4	D	14.7	N/A	N	40.2	E	20.9	89	Y	
3	Pine Street (SR-78) at Main Street ²	33.7	C	58.7	E	44.5	D	10.8	N/A	N	62.7	E	4.0	46	Y	
4	Main Street (SR-67) at Montecito Road ²	26.0	C	30.2	C	39.1	D	13.1	N/A	N	55.9	E	25.7	116	Y	
5	Montecito Way at Montecito Road ¹	8.8	A	8.9	A	10.4	B	1.6	N/A	N	10.3	B	1.4	N/A	N	
6	Main Street (SR-67) at Highland Valley/Dye Road ²	54.7	D	22.3	C	133.3	F	78.6	60	Y	23.7	C	1.4	N/A	N	
7	Main Street (SR-67) at Archie Moore Road* ¹	141.0	F	27.4	D	168.3	F	27.3	50	Y	42.6	E	15.2	58	Y	

5703-TAB12-40.wpd

D = Delay
LOS = Level of Service
V = Change
Vv = Change in volume between Existing and Existing + Project
S = Significant?
¹ = Unsignalized, worst approach delay
² = Signalized
* = PHF is 0.95

12.2.3 Existing Plus Other Projects Plus Project

Table 12-5 shows the existing plus other projects plus project AM and PM peak intersection conditions. As shown, without any improvements, conditions below County standards would occur at six (6) intersections under the existing plus other projects plus project condition, including:

SR-78 at Ash Street

SR-78 at Olive Street

SR-78 at SR-67

SR-67 at Montecito Road

SR-67 at Highland Valley Road/Dye Road

SR-67 at Archie Moore Road

Significant impacts would occur at these intersections. An impact fee assessed to other projects or specific improvements, such as widening and signalization, is required to achieve acceptable LOS.

Also shown in **Table 12-5** are locations where project traffic becomes significant when added to existing and other project traffic. As shown, project traffic is significant at six intersections, the same locations identified and discussed in the preceding section of this report.

TABLE 12-5
Existing + Other Projects and Existing + Other Projects + Project Intersection Summary

	Intersection	Existing + Other Projects				Existing + Other Projects + Project						
		AM Peak		PM Peak		AM Peak		V	Vv	S	PM Peak Hour	
		D	LOS	D	LOS	D	LOS				D	LOS
1	Ash Street at Pine Street** (SR-78) ¹	43.5	E	100.8	F	375.5	F	332.0	103	Y	*	F
2	Pine Street (SR-78) at Olive Street** ¹	54.6	F	77.2	F	145.2	F	90.6	77	Y	268.9	F
3	Pine Street (SR-78) at Main Street ²	91.1	F	181.8	F	102.4	F	11.3	40	Y	193.1	F
4	Main Street (SR-67) at Montecito Road ²	37.2	D	58.5	E	57.4	E	20.2	100	Y	69.3	E
5	Montecito Way at Montecito Road ¹	9.2	A	9.3	A	10.6	B	1.4	N/A	N	10.6	B
6	Main Street (SR-67) at Highland Valley/Dye Rd ²	150.1	F	49.6	D	161.7	F	11.6	60	Y	82.7	F
7	Main Street (SR-67) at Archie Moore Road** ¹	*	F	*	F	*	F	---	50	Y	*	F

5703-TAB12-5P.wpd

N/A = Not Applicable
D = Delay
LOS = Level of Service
V = Change
Vv = Change in volume between Existing and Existing + Project
S = Signalized, worst approach delay
¹ = Unsignalized, worst approach delay
² = Signalized
* = Intersection delay is so high, it is beyond the model accuracy
** = PHF is 0.95

12.2.4 Year 2030 Future Condition

Table 12-6 shows the Year 2030 conditions without the project and without mitigation. As shown in the table, all but one intersection evaluated show levels of service which are below County standards in the AM and/or PM peaks.

12.2.5 Year 2030 With Project Future Condition

Table 12-6 also shows the buildout (2030) with project conditions without mitigation. As shown, the project has significant impacts at six (6) locations. Mitigation of significant impacts to intersections are discussed in the next section of this report.

12.3 MITIGATION

This section of the report summarizes mitigation that will be implemented as a part of the proposed project. See **Appendix K** for HCS analysis results with mitigation.

12.3.1 Intersection Impact/ Mitigation

Table 12-7 shows the AM and PM peak levels of service expected after project mitigation is implemented. As shown in the table, all intersections will operate at acceptable levels of service, i.e., “D” or better during both the AM and PM peaks. The table footnotes define the nature of proposed mitigation. Also noted in

TABLE 12-6
Year 2030 and Year 2030 + Project Intersection Summary

Intersection	Year 2030						Year 2030 + Project							
	AM Peak Hour		PM Peak Hour		AM Peak Hour		V	Vv	S	PM Peak Hour		V	Vv	S
	D	LOS	D	LOS	D	LOS				D	LOS			
1) Ash Street at Pine Street* (SR-78) ¹	(3)	F	(3)	F	(3)	F	N/A	103	Y	(3)	F	N/A	120	Y
2) Pine Street (SR-78) at Olive Street* ¹	72.6	F	82.5	F	144.3	F	71.7	77	Y	198.6	F	116.1	89	Y
3) Pine Street (SR-78) at Main Street ²	104.0	F	193.5	F	116.8	F	12.8	40	Y	200.6	F	7.1	46	Y
4) Main Street (SR-67) at Montecito Road ²	40.0	D	59.1	E	59.2	E	14.1	100.0	N	87.3	F	28.2	116	Y
5) Montecito Way at Montecito Road ¹	9.7	A	10.1	B	11.5	B	1.8	N/A	N	11.9	B	1.8	N/A	N
6) Main St. (SR-67) at Highland Valley/Dye Rd.* ²	97.9	F	43.4	D	106.8	F	8.9	60	Y	50.0	D	6.6	N/A	N
7) Main Street (SR-67) at Archie Moore Road* ¹	(3)	F	(3)	F	(3)	F	N/A	50	Y	(3)	F	N/A	58	Y

5703-TAB12-6M.wpd

V = Change
D = Delay
LOS = Level of Service
S = Significant?
¹ = Unsignalized
² = Signalized
(3) = Intersection delay is so high, it is beyond the model accuracy
* = PHF is 0.95
Vv = Change in volume between Year 2030 and Year 2030 With Project
DNE = Does Not Exist
N/A = Not Applicable

TABLE 12-7

Existing + Project Intersection Levels of Service

(With Project Mitigation)

Number	Intersection	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1	Ash Street at Pine Street (SR-78) ¹	24.7	C	32.5	C
2	Pine Street (SR-78) at Olive Street ²	9.6	A	11.2	B
3	Pine Street (SR-78) at Main Street (SR-67) ⁵	40.7	D	49.6	D
4	Main Street (SR-67) at Montecito Road ⁵	31.1	C	38.3	D
5	Montecito Road at Montecito Way ⁶	10.4	B	10.3	B
6	Main Street (SR-67) at Highland Valley Road / Dye ⁴	33.5	C	20.9	C
7	Main Street (SR-67) at Archie Moore Road ²	5.5	A	10.7	B

Notes:

LOS = Level of Service

¹ = Signalization of intersection, add eastbound right turn lane and southbound right turn lane

² = Signalization of intersection

³ = Signalize and add turn lanes

⁴ = Add dual north to west turn left lanes

⁵ = Add south to west right turn lane, modify signal

⁶ = Add south to east left turn lane and west to north right turn lane

the table footnotes are locations where there is an existing traffic signal or two-way stop control. Following is a discussion of direct project impacts and required mitigation at each of the intersections.

- ❑ **Intersection 1 - Ash Street at Pine Street (SR-78):** With the addition of project traffic, this intersection will need to be signalized. Also, an eastbound to southbound right turn lane on Ash Street and a southbound to westbound right turn lane will be provided to accommodate project traffic. Except for the south to west right turn lane which is being provided at the request of the community, these impacts are both direct and cumulative project impacts and mitigation will have to be provided prior to issuance of the first occupancy permit on site and to the satisfaction of the Director of DPW.
- ❑ **Intersection 2 - Pine Street (SR-78) at Olive Street:** With the addition of project traffic this intersection will need to be signalized. This impact is both a direct and cumulative project impact and mitigation will have to be provided prior to issuance of the first occupancy permit on site and to the satisfaction of the Director of DPW. CALTRANS has plans to widen and signalize this location so mitigation may be in place prior to project impacts occurring.
- ❑ **Intersection 3 - Pine Street (SR-78) at Main Street (SR-67):** With the addition of project traffic the north leg of the intersection will need to be re-stripped to provide one additional lane, a right turn through or left turn lane. The traffic signal also needs to be modified. Project impacts at this location are both direct and cumulative. Widening, restriping and a signal modification will mitigate the direct project impact. Payment into the TIF program is required for cumulative mitigation prior the issuance of the first occupancy permit on site. However, if improvements are not made by the time 280 homes

are occupied, the applicant will make the necessary improvements and be reimbursed.

- ☐ **Intersection 4 - Main Street (SR-67) at Montecito Road:** Mitigation is required, because of significant direct and cumulative impacts would occur at this location. To mitigate impacts we therefore propose improvements, restriping and widening to provide a south to westbound right turn lane along with a minor signal modification.

- ☐ **Intersection 5 - Montecito Way at Montecito Road:** Provide left turn lanes on all approaches with two-way stop control. With the provision of turn lanes, neither direct or cumulative project impacts occur at this location.

- ☐ **Intersection 6 - Main Street (SR-67) at Highland Valley Road / Dye Road:** Mitigation for direct impacts to this intersection are proposed by the project. Direct intersection impacts will be mitigated by installing dual north to westbound left turn lanes; thus, a statement of overriding considerations is not required. Based on projected cumulative traffic growth plus project traffic, this intersection will need to be widened. For cumulative impacts, a project fair share contribution via payment into the TIF program will be required.

- ☐ **Intersection 7 - SR-67 at Archie Moore:** Mitigation for direct impacts to this intersection are proposed. Direct intersection impacts will be mitigated; thus, a statement of overriding considerations is not required. The project will amend the TIF program to include signalization of this intersection. A project fair share contribution will be required at this location. The project will implement the

traffic signal project to mitigate direct impacts. No roadway widening or realignment are proposed.

If widening or unreasonable improvements are required by Caltrans, then a fair share signal contribution will be made and overriding findings for direct impacts will be required.

The current TIF fees for this project are estimated based on a local per home fee of \$5,990 and a regional fee of \$2,196 per home plus a freeway fee of \$3.00 per home for a total fee of \$8,139 per home. Based upon a project of 417 homes, this translates to TIF fees of \$3,393,963 for the project. These fees will be allocated by the County Engineer toward priority projects in the Ramona Community as determined by the Board of Supervisors. These fees also will be credited toward TIF projects completed by the proposed project.

12.3.2 Segment Impacts/Mitigation

The County of San Diego has recently adopted a TIF program for the entire County, and Ramona in particular. This program provides a way for a developer to pay fees assessed by the amount of development for the purpose of mitigating cumulative street segment or intersection impacts that are caused by the construction of multiple projects in an area. The proposed project will pay its fair share of TIF fees assessed by the County, as previously discussed, for the purpose of mitigating cumulative impacts, particularly road segment impacts to State Highways caused by future growth. See **Appendix L** for information on the TIF program. **Table 12-7A** summarizes direct and cumulative impacts for intersections. **Table 12-7B** summarize direct and cumulative impacts for segments. The tables also note if the impacts are fully mitigated.

TABLE 12-7A
Intersection Impacts and Mitigation

Location	Intersection	Significant Direct Impact?(1)	Significant Cumulative Impact? (2)	Mitigation	Impact Mitigated?	Findings Required?
1.	Ash St. / Pine St. (SR-78)	Yes	Yes	Southbound right turn lane to westbound (as a community improvement; not required as mitigation); signalize and add eastbound right turn lane*	Yes	No
2.	Pine St.(SR-78) / Olive St.	Yes	Yes	Signalize existing intersection (by Caltrans)	Yes**	No
3.	Pine St. (SR-78) / Main St. (SR-67)	Yes	Yes	Widen and re-stripe north leg to add a right through lane; modify signal*	Yes	No
4.	Main St. (SR-67) / Montecito Rd.	Yes	Yes	Southbound to Westbound dedicated right turn lane*	Yes	No
5.	Montecito Rd. / Montecito Wy.	No	No	None Required based on widening by the project to provide left turn lanes.	N/A	N/A
6.	Main Street (SR-67) / Highland Valley Rd. / Dye Rd.	Yes	Yes	Construct northbound dual left turn lanes	Yes	No
7.	Main Street (SR-67)/ Archie Moore Rd.	Yes	Yes	Signalize existing intersection*	Yes	No

Notes:

(1) From Tables 12-4

(2) From Table 12-6

* Proposed mitigation would mitigate both direct and cumulative impacts.

** Based upon Board Policy J-34, where mitigation is assumed by others, if the recommended mitigation is not in place at the time project impacts occur, the project will provide the mitigation subject to reimbursement except for the project's fair share contribution.

Note: All State Highway improvement plans and improvements will need to be approved by both the County and Caltrans.

TABLE 12-7B
Roadway Segment Impacts and Mitigation

DIRECT IMPACTS (1)

Road	Segment	Significant Impact? (1)	Mitigation	Impact Mitigated?	Override Required?
Pine Street (SR-78)	Ash Street to Main Street	Yes	Revise TIF to widen to 4 Lane Major	No*	Yes
Main Street (SR-67)	Hunter Street to Poway Road	Yes	Revise TIF to widen to 4 Lane Major***	No*	Yes

CUMULATIVE IMPACTS (2)

Road	Segment	Significant Impact? (1)	Mitigation	Impact Mitigated?	Override Required?
Pine Street (SR-78)	Ash Street to Main Street	Yes	Amend TIF to include widening fair share contribution to TIF; widen to 4 Lane Major	Yes**	No
Main Street (SR-67)	Hunter Street to Poway Road	Yes	Fair share contribution to TIF; widen to 4 Lane Major	No***	Yes

Notes:

(1) From Table 12-1 (2) From Table 12-3

* Road segment widening is not being proposed. The intersection improvements will partially mitigate segment impacts. A statement of overriding considerations will be required.

** If the TIF is not amended, then a statement of overriding consideration will be required.

*** A project contribution to TIF will mitigate impacts to SR-67 within the Ramona boundary, overriding considerations will be required from the Ramona boundary to Poway Road.

12.4 INTERSECTING LANE VOLUME (ILV) ANALYSIS

Caltrans uses the Intersection Lane Volume (ILV) method for determining the adequacy of proposed mitigation improvements. In this section, the results of ILV analyses for several conditions are summarized.

12.4.1 Year 2030 With Project

Table 12-8 summarizes the ILV analysis results for the 2030 With Project condition (mitigated). As shown in the table only peaks at three locations are shown to be over capacity. The locations and peaks which are over capacity are listed in the table below.

Number	Intersection	ILV	Capacity	Peak
1	Ash Street at Pine Street (SR-78)	1,653	1,500	PM
3	Pine Street (SR-78) at Main Street (SR-67)	1,568	1,500	AM
3	Pine Street (SR-78) at Main Street (SR-67)	2,042	1,500	PM
7	Main Street (SR-67) at Archie Moore	1,856	1,500	AM
7	Main Street (SR-67) at Archie Moore	1,882	1,500	PM

At SR-78 and SR-67, an ILV of 2,042 is significantly over the analysis threshold of 1,500 ILV/Hour. Therefore, Caltrans may wish to recommend further improvements at this location. The main cause for an over capacity condition is increased through traffic in the 2030 condition which is not project related. At

TABLE 12-8
Intersecting Lane Volume (ILV) Analysis Summary
Year 2030 With Project Mitigated

Number	Location		ILV	Capacity	Conclusion
1	Ash Street at Pine Street (SR-78)	AM	1231	1,500	Approaching
		PM	1653	1,500	Over
2	Pine Street (SR-78) at Olive Street	AM	1129	1,500	Under
		PM	1253	1,500	Approaching
3	Pine Street (SR-78) at Main Street (SR-67)	AM	1568	1,500	Over
		PM	2042	1,500	Over
4	Main Street (SR-67) at Montecito Road	AM	1294	1,500	Approaching
		PM	1468	1,500	Approaching
5	Montecito Way at Montecito Road	AM	Not a State Highway Location (Under Capacity Both Peaks)		
		PM			
6	SR-67 at Highland Valley Road / Dye Road	AM	1397	1,500	Approaching
		PM	1011	1,500	Under
7	SR-67 at Archie Moore Road	AM	1856	1,500	Over
		PM	1882	1,500	Over

SR-67 / Archie Moore Road, the ILV volumes are still in the 1,800 range, so the proposed mitigation is very close to accommodating traffic up to the Year 2030. Monitoring and Regional TIF contributions in the future may be more appropriate as actual, not forecast conditions, become known. **Appendix M** includes the ILV Analysis Worksheets.

12.4.2 Existing

Table 12-9 summarizes the ILV analysis results. See **Appendix M** for the analysis worksheets. As shown in the table, SR-67 / Highland Valley Road / Dye Road and SR-67 / Archie Moore Road are presently over capacity in the morning.

12.4.3 Phase 1 With Project

Table 12-9A represents an ILV analysis of the first project phase which includes up to 280 homes. Phase 1 includes the widening of Ash Street and existing Montecito Way to accommodate traffic associated with the first 280 homes. As shown in the table, all intersections except two operate satisfactorily. The two intersections which operate over capacity are:

- 1.SR-67 at Highland Valley / Dye Road (AM Only).
- 2.SR-67 at Archie Moore Road (AM Only).

12.4.4 Existing With Project

Table 12-10 summarizes the ILV analysis results for existing plus project (mitigated) conditions. See **Appendix M** for analysis worksheets. As shown in the table, for all locations and both peaks there are no

TABLE 12-9

ILV Analysis Summary Existing

Number	Location		ILV	Capacity	Conclusion
1	Ash Street at Pine Street (SR-78)	AM	620	1,500	Under
		PM	682	1,500	Under
2	Pine Street (SR-78) at Olive Street	AM	606	1,500	Under
		PM	670	1,500	Under
3	Pine Street (SR-78) at Main Street (SR-67)	AM	1052	1,500	Under
		PM	1396	1,500	Approaching
4	Main Street (SR-67) at Montecito Road	AM	947	1,500	Under
		PM	1138	1,500	Under
5	Montecito Way at Montecito Road	AM	Not a State Highway Location (Under Capacity Both Peaks)		
		PM			
6	SR-67 at Highland Valley Road / Dye Road	AM	1554	1,500	Over
		PM	1055	1,500	Under
7	SR-67 at Archie Moore Road	AM	1579	1,500	Over
		PM	1324	1,500	Approaching

TABLE 12-9 A

ILV Analysis Summary Phase 1 Project

Number	Location		ILV	Capacity	Conclusion
1	Ash Street at Pine Street (SR-78)	AM	778	1,500	Under
		PM	753	1,500	Under
2	Pine Street (SR-78) at Olive Street	AM	669	1,500	Under
		PM	735	1,500	Under
3	Pine Street (SR-78) at Main Street (SR-67)	AM	711	1,500	Under
		PM	1197	1,500	Under
4	Main Street (SR-67) at Montecito Road	AM	1097	1,500	Under
		PM	1297	1,500	Approaching
5	Montecito Way at Montecito Road	AM	Not a State Highway Location (Under Capacity Both Peaks)		
		PM			
6	SR-67 at Highland Valley Road / Dye Road	AM	1673	1,500	Over
		PM	1131	1,500	Under
7	SR-67 at Archie Moore Road	AM	1706	1,500	Over
		PM	1438	1,500	Approaching

TABLE 12-10

ILV Analysis Summary Existing Plus Ultimate Improvements

Number	Location	ILV	Capacity	Conclusion
1	Ash Street at Pine Street (SR-78)	AM	800	Under
		PM	894	Under
2	Pine Street (SR-78) at Olive Street	AM	699	Under
		PM	758	Under
3	Pine Street (SR-78) at Main Street	AM	967	Under
		PM	1,229	Approaching
4	Main Street (SR-67) at Montecito Road SR-67)	AM	953	Under
		PM	1,144	Under
5	Montecito Way at Montecito Road	AM	Not a State Highway Location (Under Capacity Both Peaks)	
		PM		
6	SR-67 at Highland Valley Road / Dye Road	AM	1,116	Under
		PM	811	Under
7	SR-67 at Archie Moore Road	AM	926	Under
		PM	1,186	Under

intersections which are over capacity. This result is due to improvements being made to mitigate project impacts.

12.4.5 Existing Plus Other Projects Plus Project

The table below summarizes the existing plus other projects plus project ILV analysis results which are over capacity. **Table 12-11** summarizes the ILV analysis results of this condition. See **Appendix M** for analysis worksheets.

Number	Intersection	ILV	Capacity	Peak
3	Pine Street (SR-78) at Main Street (SR-67)	2,028	1,500	PM

12.4.6 Year 2030 Without Project

Table 12-12 shows the ILV analysis results for the long term cumulative without project condition. The results show intersections over capacity at the same locations as 2030 with project condition except that Ash Street / SR-78 would not be over capacity and SR-67 / Highland Valley Road / Dye Road would be over capacity in the morning peak. This means that further improvements are necessary to mitigate long term growth.

12.4.7 Near Term Phased

Table 12-13 summarizes the analysis results for the near term phased project condition. As shown, SR-78 at SR-78 and SR-67 at both Highland Valley Road / Dye Road and Archie Moore Road are over capacity. Mitigation is not assumed for this analysis.

TABLE 12-11

ILV Analysis Summary Existing Plus Other Projects Plus Project Mitigated

Number	Location		ILV	Capacity	Conclusion
1	Ash Street at Pine Street (SR-78)	AM	1,081	1,500	Under
		PM	1,344	1,500	Approaching
2	Pine Street (SR-78) at Olive Street	AM	1,113	1,500	Under
		PM	1,188	1,500	Under
3	Pine Street (SR-78) at Main Street (SR-67)	AM	1,458	1,500	Approaching
		PM	2,028	1,500	Over
4	Main Street (SR-67) at Montecito Road	AM	1,191	1,500	Under
		PM	1,393	1,500	Under
5	Montecito Way at Montecito Road	AM	Not a State Highway Location (Under Capacity Both Peaks)		
		PM			
6	SR-67 at Highland Valley Road / Dye Road	AM	1,498	1,500	Approaching
		PM	992	1,500	Under
7	SR-67 at Archie Moore Road	AM	1,372	1,500	Approaching
		PM	1,025	1,500	Under

TABLE 12-12

ILV Analysis Summary Year 2030 Without Project

Number	Location	ILV	Capacity	Conclusion
1	Ash Street at Pine Street (SR-78)	AM	1056	Under
		PM	1457	Approaching
2	Pine Street (SR-78) at Olive Street	AM	1039	Under
		PM	1170	Under
3	Pine Street (SR-78) at Main Street (SR-67)	AM	1654	Over
		PM	2302	Over
4	Main Street (SR-67) at Montecito Road	AM	1232	Approaching
		PM	1402	Approaching
5	Montecito Way at Montecito Road	AM	Not a State Highway Location (Under Capacity Both Peaks)	
		PM		
6	SR-67 at Highland Valley Road / Dye Road	AM	1891	Over
		PM	1179	Under
7	SR-67 at Archie Moore Road	AM	2887	Over
		PM	2267	Over

TABLE 12-13

ILV Analysis Summary Near Term - Phased

Number	Location	ILV	Capacity	Conclusion
1	Ash Street at Pine Street (SR-78)	AM	904	Under
		PM	1141	Under
2	Pine Street (SR-78) at Olive Street	AM	1020	Under
		PM	1100	Under
3	Pine Street (SR-78) at Main Street (SR-67)	AM	1622	Over
		PM	2280	Over
4	Main Street (SR-67) at Montecito Road	AM	1187	Under
		PM	1387	Approaching
5	Montecito Way at Montecito Road	AM	Not a State Highway Location (Under Capacity Both Peaks)	
		PM		
6	SR-67 at Highland Valley Road / Dye Road	AM	2151	Over
		PM	1449	Approaching
7	SR-67 at Archie Moore Road	AM	2316	Over
		PM	1892	Over

12.5 QUEUING ANALYSIS

Another design issue related to mitigation is determining turn pocket lengths to be sure adequate storage is provided for left turn pockets. **Table 12-14** summarizes the results of this analysis for Year 2030 with Project (mitigated) condition. As shown in the table, PM peak intersection left turn volumes are determined. Then, based on the magnitude of the volume and the guideline to provide one foot of storage for each vehicle turning during the peak hour, recommended turn pocket lengths were derived.

The recommended pocket lengths are the higher of either the AM or PM peak for each location where left turn pockets are existing or recommended.

Appendix M includes the Queuing Summary Worksheets.

12.6 TRAFFIC SIGNAL WARRANTS

A traffic signal warrant analysis was completed for each location proposed for a new traffic signal. **Table 12-15** summarizes the results of this analysis and **Appendix M** includes the warrant worksheets.

As shown in **Table 12-15**, traffic signal warrants are met at all non-signalized locations except for Montecito Way at Montecito Road. It should be noted that no traffic signals will be installed until warrants are met as determined by Caltrans and to the satisfaction of the Director of DPW.

TABLE 12-14

**Queuing Analysis Results
To Determine Turn Pocket Storage Lengths
Year 2030 With Project - Mitigated**

Number	Location		Peak Volume				Turn Pocket Length			
			EB	WB	SB	NB	EB	WB	SB	NB
1	Ash Street at Pine Street (SR-78)	AM	X	X	23	150	X	X	100	150
		PM	X	X	57	210	X	X	100	250
2	Pine Street (SR-78) at Olive Street	AM	X	X	26	9	X	X	100	100
		PM	X	X	17	15	X	X	100	100
3	Pine Street (SR-78) at Main Street (SR-67)	AM	335	177	107	193	350	200	150	200
		PM	363	196	156	178	350	200	200	200
4	Main Street (SR-67) at Montecito Road	AM	152	114	X	X	150	150	X	X
		PM	199	90	X	X	200	100	X	X
5	Montecito Way at Montecito Road	AM	10	79	X	X	100	100	X	X
		PM	10	109	X	X	100	150	X	X
6	Main Street (SR-67) at Highland Valley Road / Dye Road	AM	95	544	51	36	100	250*	100	100
		PM	123	130	94	34	150	150	100	100
7	SR-67 at Archie Moore Road	AM	29	X	X	250	100	X	X	250
		PM	40	X	X	495	100	X	X	250

* Dual left turn lane assumed

TABLE 12-15
Signal Warrant Summary

Number	Intersection	Warrant	
		Met	Not Met
1	Ash Street at Pine Street (SR-78)	Yes	---
2	Pine Street (SR-78) at Olive Street	Yes	---
5	Montecito Way at Montecito Road	---	Yes
7	Main Street (SR-67) at Archie Moore Road	Yes	---

Note: No traffic signals are to be installed until Caltrans and/or the County agree that warrants are met.

12.7 CONSTRUCTION TRAFFIC CONTROL AND MITIGATION

Earthwork will balance both on site and off-site, therefore project-related traffic would be restricted to construction workers and supplies for infra-structure. The construction period for the Proposed Project is three to six years. The grading equipment to be used for the Proposed Project will be brought to the site at the beginning of the grading period and would remain on site until the completion of the grading period (e.g., equipment would not be hauled to and from the site daily). It is anticipated that from 15 to 240 workers on any one day would travel to and from the Project site, with an additional 70 workers required during sewage treatment plant construction. More typically, there is expected to be a maximum of 100 workers on site at any one time with 50 workers present on an average weekday. Based on an average weekday count of 50 workers, there will be 100 worker vehicle trips (50 trips each way) per day. It should be noted that worker trips usually are made outside typical traffic peaks. This is because a typical construction work day is 7:00 AM until 3:30 PM. Therefore, workers arrive at the site before the AM traffic peak and leave the site before the PM traffic peak. Approximately 20 construction-related vehicle (truck) trips would also be made per day to transport construction material to the Project site over a period of 3-6-years, which equates to 2-3 truck trips per hour. Housing construction is estimated to take approximately 48 months to complete (assuming work would occur Monday through Friday). It also was assumed that a maximum of 50 trucks per day (100 truck trips per day; 12.5 trips per hour) would transport materials to the site for treatment plant construction. Construction of the treatment plant is estimated to take 15 months to complete (assuming work would occur Monday through Friday).

A primary element of standard traffic control measures include a "Traffic Control Plan" which is approved by the County Department of Public Works prior to start of any clearing or grading activities, and would be implemented during construction of the Proposed Project. During roadway and utility improvements, access along segments of Ash Street, Montecito Way, and Montecito Road would be affected, but would remain open to traffic and emergency vehicles at all times. Two travel lanes (one in each direction) would remain open at all times, which may require the use of off-pavement shoulders. If Project construction limits traffic to one lane, traffic would be controlled and flagged around the work site. This event would only occur during actual construction. Other traffic control measures may include use of limited work hours, flaggers, detours as needed, traffic cones, advanced notification, signage, and pedestrian/equestrian detours. Emergency access to all residential and commercial properties (i.e., the shopping center at the east end of Montecito Road) would be maintained at all times. In addition, the construction contractor will provide a means for public liaison/contact information for public inquiries and concerns.

13.0 PROJECT ALTERNATIVES

There are five feasible project alternatives identified in the Draft EIR. Not all the alternatives, however, have traffic impacts; the “No Project - No Development” Alternative would not generate any new traffic. Traffic would be the same as that identified under existing conditions in the project area. Two of the alternatives (Closed Water System Alternative and Reduced Development Footprint Alternative), would generate the same number of traffic trips and impacts as the proposed project, because the same land uses are proposed under these alternatives.

There are two alternatives which would result in traffic impacts that are different from the proposed project.

These alternatives are:

1. No Project - Development Per Legal Parcels
2. Reduced Density

The No Project - Development Per Legal Parcels Alternative would result in 196 single-family homes plus the 11.9-acre historical park site and the Reduced Density alternative would result in 244 single-family homes and both parks (i.e., neighborhood and historical). Neither of these alternatives would dedicate land for the future charter high school. Traffic generation for these two alternatives is shown in **Tables 13-1A and B.**

TABLE 13-1A

Trip Generation for Legal Parcels Alternative

Use	Amount		*Trip Rate	ADT	AM PEAK HOUR					PM PEAK HOUR				
					%**	#	In/Out**	In	Out	%**	#	In/Out***	In	Out
Residential	196	DU	12 /DU	2,352	8	188	3 : 7	56	132	10	235	7 : 3	165	71
Historical Park	11.90	Ac	5 /ac	60	13	8	5 : 5	4	4	9	5	5 : 5	3	3
			Total	2,412		196		60	136		240		168	74

TABLE 13-1B

Trip Generation for Reduced Density Alternative

Use	Amount		*Trip	ADT	AM PEAK HOUR					PM PEAK HOUR				
					%**	#	In/Out*	In	Out	%**	#	In/Out**	In	Out
Residential	244	DU	12 /DU	2,928	8	234	3 : 7	70	164	10	293	7 : 3	205	88
Nbhd. Park / Historical Park	20.14	Ac	5 /ac	101	13	13	5 : 5	7	7	9	9	5 : 5	5	5
			Total	3,029		247		77	171		302		210	93

NOTE:

*= Average weekday traffic generation based on SANDAG Traffic Generation Rates, April 2002.
(See Appendix D)
DU= Dwelling Unit
Ac= Acre
St= Student

As shown in the Alternative Trip Generation tables, traffic generation is significantly reduced from proposed project ADT of 5,885 to only 2,412 ADT for the No Project - Development Per Legal Parcels Alternative and 3,029 ADT for the Reduced Density Alternative. The project phasing analysis (see discussion Section 11.4) is where we determined that 280 homes could be developed by using a combination of Ash Street and Montecito Road for access. The 280 homes would generate 3,360 daily trips which is about 10% more than the Reduced Density alternative. We can therefore expect similar roadway improvements for the No Project - Development Per Legal Parcels Alternative, which is about 1/3 less traffic than the phasing alternative. The same two access routes, i.e., Ash Street to SR-78 and Montecito Road to SR-67 would be sufficient; SA-330 from Montecito Road to SR-67 would not need to be constructed. A more detailed study would be necessary to further identify peak hour impacts and mitigation if either the Reduced Density or the No Project - Development Per Legal Parcel alternatives were selected instead of the proposed project.

14.0 REFERENCES

San Diego Region Traffic Engineer's Council (SANTEC) and Institute of Transportation Engineers (ITE),
California Border Section,

Guidelines for Congestion Management Program (CMP) Traffic Impact Report, San Diego, CA (1993)

Transportation Research Board,

1997 Highway Capacity Manual Special Report, Washington, DC (2000 Update)

SANDAG:

Brief Guide of Vehicular Traffic Generation Rates (April 2002)

San Diego County Department of Planning and Land Use,

General Plan 2020 Traffic Modeling and Residential Land Use Distribution Map (May 19, 2004)

San Diego County Department of Public Works, Airports Division,

Ramona Airport Improvement Project (September 1998)

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